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ADDRESS.

PRELIMINARY EDUCATION, PROFESSIONAL TRAINING AND PRACTICE IN NEW YORK.

Address before the sixth annual meeting of the National Confederation of State Medical Examining and Licensing Boards, Atlanta, Ga., May 4, 1896.

BY JAMES RUSSELL PARSONS, JR.
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A few years ago the terms "American doctor" and "Philadelphia doctor" were current in Europe as synonyms for incompetency. This fact was most disagreeably impressed on my mind when as United States consul at Aix-la-Chapelle I was asked to testify in a case before the German courts touching the value of a Buchanan diploma.

The circumstances connected with this German trial were vividly recalled last month by one who seemed anxious to equal the record of Buchanan in selling medical degrees to all comers.

A young pharmacist who had never studied at a medical school asked me if I thought a medical degree from the Wisconsin Eclectic Medical College worth $35. In response to my questions, he submitted certain letters, the first from the president of the institution which offered the diploma (see JOURNAL, Vol. XXVI, p. 838), the second, which we herewith give, from the Secretary of State of Wisconsin, answering a question asked by the young pharmacist.

DEPARTMENT OF STATE, MADISON, WIS., April 14, 1896.
Mr. ——, Albany, N. Y.

Dear Sir:—In reply to yours of April 10, will say that the Wisconsin Eclectic Medical College of Milwaukee is a regularly incorporated company of Wisconsin. I know nothing in reference to its reliability. Would refer you to Dr. Walter Kempster, Commissioner of Health, Milwaukee, Wis., for information in regard to same. Yours very truly,

HENRY CASSON, Secretary of State.

The examination blank referred to in the first letter includes thirty-seven questions. Thirty-five dollars and a rudimentary knowledge of the purpose of a cathartic seem to be about the only requirements for an M.D. degree from this enterprising institution.

History repeats itself but with less frequency in this direction than formerly, and the evil resulting from this reckless distribution of diplomas is largely nullified because in thirty-five States and three Territories these diplomas no longer constitute a license to practice medicine.[1]

In 1888 the United States was almost the only civilized country in the world that did not as a rule protect its citizens from the imposition of quacks. Many of our distinguished physicians and surgeons were known and honored abroad, but the genius of the few could not atone for the incompetency of the many; in the absence of proper restrictions it was impossible for the American medical profession to attain a position of eminence.

Since 1888, when my testimony was desired by the German courts, how great the change! At that time only five States in the Union exacted an examination for license to practice medicine, and the laws in those States were crude, imperfect and for the most part inoperative.

A licensing examination is now required in twenty-two States. Indeed, if we count Texas, where laws conflict, the roll includes twenty-three.

In 1893 the Massachusetts Legislature passed an act requiring plumbers to be examined for license. After this the practice of medicine could not long remain unrestricted, and as a matter of course the law of 1894 followed.

At the present time there are laws to regulate medical practice in all States except New Hampshire. In this State not even registration is required.

Though Harvard shares with Johns Hopkins[2] the honor of first requiring college graduation as the preliminary education for M.D. degrees, we have long been forced to recognize on the part of New England lawmakers a singular indifference to provisions restricting the practice of medicine.

In "Customs and Fashions in Old New England" Alice Morse Earle tells us that in "1631, one Nicholas Knapp was fined and whipped for pretending 'to cure the scurvey by a water of noe worth nor value which he sold at a very deare rate.'" One is almost tempted to suspect that this whipping took as much out of the New Engtand lawmakers as it did out of Mr. Nicholas Knapp, for since that remote date scarcely a rumor has reached us of any equally vigorous remonstrance with unqualified practitioners.

As a result New England has been a specially promising field for quacks, not many of whom were considerate enough to follow the example of the celebrated "rain water doctor." Of this worthy it is recorded that he "worked wondrous miracles and did a vast and lucrative business" till he opportunely ended his career by tumbling into a hogshead of his own medicine.

As already stated twenty-three States now require licensing examinations. Of these examinations, sixteen are before a single board; four before two boards, allopathic and homeopathic; three before three boards, allopathic, homeopathic and eclectic.[3] In eleven States candidates for examination must be graduates of medical schools; in three of these eleven

[1] As I was about to leave Albany for Atlanta a letter reached me from Dr. Kempster stating that proceedings had already been instituted by the Attorney General of Wisconsin to revoke the charter of the Wisconsin Eclectic Medical College. He added that graduates of this institution were not permitted to register in Wisconsin. It seems impossible, however, to prevent the registration of worthless diplomas in those States whose laws require merely the presentation of any sort of a certificate of qualification to unqualified local officers.

[2] Recent action by the University of Michigan contemplates a similar requirement.

[3] In Alabama each county has an examining board; in Texas and Florida each judicial district. Florida also has a general homeopathic board.

States they must have studied medicine four years; in two States they must have attended at least three courses of medical lectures, though a diploma is not required. One of these States, Minnesota, will require four courses but not a diploma after Jan. 1, 1899. In six States applicants must have a competent preliminary education, though the provision is indefinite except in the New York law.[4] Montana requires of applicants graduating after July 1, 1898, four courses of six months each. In New York the increase from three to four courses of six months each takes effect Jan. 1, 1898, but does not apply to students matriculated before that date and graduated before 1902. In ten States the licensing examination is the only test of fitness for practice, plainly a much more unsafe standard than indorsement of diplomas from accredited schools without a licensing examination.

The laws of thirteen States and three Territories[5] demand either approval of medical diploma or examination by State or other duly qualified boards.

Illinois, a type of this second class, has done much to elevate the standard of medical education in the United States.

This leaves only eight States and three Territories in which it is necessary merely to present the diploma or other certificate of qualification to unqualified local officers.

We do not contend that many State medical laws are satisfactory. Indeed with few exceptions they are far from perfect. But we do assert positively that the advance in this country since 1888 is without a parallel.

But I will not trespass on your patience by speaking more at length of State medical laws in general. It is my purpose briefly to call your attention to what has been done in New York since 1888.

The University of the State of New York, established in 1784, is one of our oldest institutions. It is not a teaching body but a State department and at the same time a federation of 640 institutions of higher and secondary education. Its administrative departments are five in number, Regents office, Examination, Extension, State library, State museum. Its objects, as defined in the University law, are "to encourage and promote higher education, to visit and inspect its several institutions and departments, to distribute to or expend or administer for them such property and funds as the State may appropriate therefor or as the University may own or hold in trust or otherwise, and to perform such other duties as may be intrusted to it."

To the examination department, organized in 1889, are entrusted all examinations conducted by the regents, including preacademic, academic, extension, higher, professional and technical. These examinations require annually 1,500,000 question papers, which are printed in the department on our own presses, by our own employees.

In all examinations under the University, as fully set forth in the academic syllabus, "it is the aim to test as far as practicable the thought-power of candidates. Definitions, rules, principles and laws are of little value without a knowledge of their applications."

The system of alternative questions is in vogue; the question papers are framed along broad fundamental lines, and, if students are adequately prepared, the chance of failure is reduced to a minimum.

[4] The New York standard has just been adopted by the Pennsylvania board of medical examiners.

[5] Including Indian Territory, though the Cherokee Nation requires a licensing examination.

The excellent results achieved by these examinations are largely due to the sympathetic cooperation of teachers and professional men throughout the State. Intelligent criticisms and suggestions are earnestly requested and always meet with careful consideration.

Academic examinations in 73 branches are held by the regents of the University in January, March and June in about 500 New York secondary schools; at the summer schools in August, and at central points in September, for professional and technical students only. They are also given once a year in other States when expenses are provided.

The method of conducting regents' examinations was prescribed in 1864. Since 1870 all papers claimed by principals as meriting 75 per cent. have been reexamined at the regents' office. In 1895 259,932 academic papers alone, not including those written by professional students, were submitted to the department. Of this number 28,701 or 11 per cent. were rejected.

The phenonenal growth of these academic examinations under the revised system of 1891 is especially remarkable in view of the fact that they are purely voluntary and that the University discourages all tendencies to over-examination.

The regents were not required to certify to the preliminary education of those seeking admission to any professional study till 1882, when the court of appeals adopted a rule that all law students, unless college graduates, must pass certain regents' examinations. These requirements were raised in 1891, and again in 1894.

The acknowledged value of the law student examinations led in 1889 to a similar requirement for medical students. This law was amended in 1893, 1895 and 1896. The statute that took effect March 21, 1896, fixes as the minimum preliminary education for medical degrees a registered four year high school course following a completed eight year elementary course.

After January 1, 1897, all matriculants for medical degrees must either be graduates of at least a registered four year high school course, or pass equivalent regents' examinations.

The registry list in the regents' office is constantly revised to meet changes in courses of study, and is the source of information in response to inquiries from all parts of the globe. An idea of the extent of this work is shown by the fact that credentials in 20 different languages were received last year.

July 1, 1895, the new veterinary law took effect and August 1, 1895, the new dental law, fixing the same preliminary education standard as that for medicine. Students may be matriculated conditionally provided the conditions do not exceed more than one year's work, but all conditions must be made up before the beginning of the second annual course counted toward the degree.

We see therefore that graduation from a registered high school is now the accepted New York standard for admission to professional study. In medicine, dentistry and veterinary medicine there is no exception. Pending another revision of the rules of the court of appeals, however, a law student unable to offer a three year high school course or its equivalent, may meet the preliminary requirement for admission to the bar by passing examinations in specified studies representing only two years of academic work.

In 1895 16,612 answer papers were written by can-

didates seeking admission to professional study, a growth of 106 per cent. in two years. 68.9 per cent. of these papers were accepted as compared with 59 per cent. of those written at the schools.

Between 50 and 90 per cent. of these professional certificates are granted without regents' examinations on evidence of the requisite preliminary education. This proportion will doubtless increase under the new laws till it becomes at least 82.5 per cent. as in 1893.

Graduation from a registered four year high school course after the completion of eight years in an elementary school approximates the highest standard adopted by any country in the world for admission to the study of law or medicine, and is fully equal to the requirement of any other government for dental or veterinary students.

In Germany the matriculant must have passed the Abiturientenexamen after completing the course of nine years in a Gymnasium. This examination presupposes as much work as is usually covered at the close of the freshman year in a registered American college. Dentists and veterinary surgeons must have passed the examination at the close of seven years in a Gymnasium or Realschule (Zeugniss der Reife für die 1 eines Gymn. oder einer Realschule).

In Austro-Hungary, Russia and Switzerland the requirements for matriculation to medical study are on about the same plane. In France the degree of Bachelier ès lettres (equivalent to graduation from a full high school classical course) and additional examinations in physics, chemistry and the natural sciences are required. A similar standard is maintained in Italy (Licenza liceale), Spain and Cuba (Bachillerato and a supplementary examination). In England the minimum test, fixed by the program of the British medical council is comparatively low, though many English students have either passed a matriculation examination in arts or hold the B.A. degree. In the Canadian provinces also the varying requirements do not represent in any case more than the completion of a registered three year high school course. The minimum test prescribed by the Association of American Medical Colleges is still lower and only includes a little more than one year of academic work.

We now turn to the consideration of professional training and practice in New York.

Of her twelve medical schools, four adopted a four year graded course in 1894 and five in 1895 and 1896. For matriculants after January 1, 1898, four years' study of at least nine months each, including four satisfactory courses of at least six months each in four different calendar years must be required for degrees by all medical schools in New York State. This minimum standard for the degree of M.D. is equal to that prescribed in Austro-Hungary, France and Germany.

There are more medical schools in the United States alone than in countries whose total population is six times as great, and yet less than one dozen of these medical schools in the United States have endowments corresponding to those so lavishly made to other educational institutions or in any way proportioned to their needs.

Under these conditions we must expect to find often low requirements both for matriculation and for graduation where the public is not protected by statutes which establish minimum standards.

To Montana belong the honor of first requiring for admission to the State licensing examination a diploma granted after four courses of at least six months each to take effect for all applicants graduating after July 1, 1896. As previously stated Minnesota will require four courses but not a diploma after Jan. 1, 1899. The Association of American Medical Colleges including sixty-three medical schools in the United States will push on this movement by its constitutional provision for a similar requirement for M.D. degrees in 1899 or thereafter, though contrary to the New York law, students of dentistry, veterinary medicine and pharmacy may be admitted to advanced standing. It seems safe to predict that within a few years the minimum standard, now prescribed by the laws of Montana and New York will be adopted by all reputable medical schools in the United States.

The New York dental and veterinary laws require for degrees three satisfactory courses in three different years. The three dental schools and the two veterinary schools meet this requirement.

Though three years' study of law is exacted for admission to the bar except of graduates of registered colleges, who may be admitted in two years, yet five of the seven New York law schools still confer the degree of bachelor of laws after two years' work.

It is rather singular that both in preliminary education and in term of professional study, dentistry, and veterinary medicine stand higher than law. Some action will probably be taken in 1896 to correct this anomaly.

It may be easily shown that high standards have proved beneficial to New York professional schools. Let us take medicine as an illustration. Since 1891 when the licensing law took effect the number of medical students in New York schools have increased from 3,321 to 3,756, the number of foreign students from 1,556 to 1,706. The property of New York medical schools shows an increase during this period of five years from $2,764,530.22 to $4,061,293.59, the annual receipts from $397,969.72 to $460,043.97.

The report of the examination department for 1894 contained a review of medical education in the United States and in foreign countries. In this report it was stated on the authority of Dr. Pepper that the University of Erlangen in Germany grants an M.D. degree after a three-year medical course. We were specially gratified to receive in October 1895 a strong denial of the statement from the dean of the faculty of medicine at Erlangen, showing conclusively how carefully American medical reports are now scanned abroad. Perhaps the Germans anticipate retaliation for the terms "American doctor" and "Philadelphia doctor."

In medicine, dentistry and veterinary medicine licensing examinations are now required by law. All applicants must meet the prescribed preliminary education standard and must hold either a diploma from some registered school or a license from some foreign country.

The New York law forbids the registration by the regents of any school outside the State whose minimum graduation standard is less than that fixed by law for New York schools.

The University is responsible only for the preliminary general education of law students. Examinations for admission to the bar were not uniform till the creation by the 1894 legislature of a State board of law examiners, consisting of three members to be appointed by the court of appeals.

Another important advance in 1894 was the ruling of the court of appeals and of the regents that only those were to be considered college or university graduates who had successfully completed a satisfactory course of not less than seven years in advance of grammar school studies. This ruling is in direct accord with the following provision in the University law:

"No individual, association or corporation not holding university or college degree-conferring powers by special charter from the legislature of this State or from the regents, shall confer any degrees, nor after Jan. 1, 1893, shall transact business under, or in any way assume the name university or college, till it shall have received from the regents under their seal written permission to use such name, and no such permission shall be granted by the regents, except on favorable report after personal inspection of the institution by an officer of the University."

As the veterinary and dental laws did not take effect until July and August, 1895, respectively, we can not yet report the results of the first year's work. These laws are modeled closely on the medical law, and practically the same rules and regulations have been adopted for their administration by the University.

During the four years in which the medical licensing examinations have been given 56, 267, 390 and 606 allopathic candidates have been examined 8, 21, 51 and 60 homeopathic, and 4, 7, 4 and 11 eclectic, making a total of 1,485, of which number 291, or nearly 20 per cent., were rejected.

In this summary each candidate who fails is counted as often as examined. Thirteen hundred different candidates have appeared before the three State medical boards during the four years ending Aug. 1, 1895, of which number 106, or more than 10 per cent., have failed to secure a license.

This result is remarkable when we consider that admission to the licensing examinations presupposes the preliminary education required by statute and graduation with the degree of bachelor or doctor of medicine from a registered medical school.

The work of men long out of school compares favorably with that of recent graduates:

	Per cent. licensed.		
	1893	1894	1895
Examined on graduation	91.8	91	90
Examined after 1 year's practice..	93.8	90	82
Examined after 2 years' practice..	83.4	87	85
Examined after from 3 to 33 years' practice	89.2	77	87

In 1895, failures were as follows in the several topics: Physiology and hygiene 19, surgery 36, anatomy 48; therapeutics, practice and materia medica 59, chemistry 62, pathology and diagnosis 65, obstetrics 67.

It is remarkable that old practitioners do better in physiology and hygiene, anatomy and chemistry than in obstetrics, or pathology and diagnosis. The statistics at all events show that in the only subjects for which some have demanded two standards, the old practitioners do not need a special dispensation.

We have now reviewed briefly the present status of preliminary education, professional training and practice in New York. To what has been said may be added a reference to the new law, by which no one may hereafter serve as a certified public accountant who does not hold a certificate of qualification from the University.

The attitude of New York toward professional training and practice is of special importance. In her law schools are about 1,500 students, or one quarter of the number in attendance on all law schools in the United States. In her medical schools are nearly 4,000 students, or one-fifth the total for the entire country. In other professions she is equally prominent.

From this brief statement of facts I hope you have gained clearer ideas of the progress New York has made in preliminary education, professional training and practice, especially since 1889, the date of the first law requiring a preliminary education for medical degrees.

ORIGINAL ARTICLES.

TREATMENT OF CANCER OF THE RECTUM.

Read by Title in the Section on Surgery and Anatomy at the Forty-seventh Annual Meeting of the American Medical Association, at Atlanta, Ga., May 5-8, 1896.

BY LEWIS H. ADLER, M.D.

Professor of diseases of the Rectum, Philadelphia Polyclinic and Post-Graduate College; Surgeon to the Charity Hospital and to the out-patient Department of the Episcopal Hospital.

PHILADELPHIA, PA.

The question of what surgical procedure is justifiable in any given case of cancer of the rectum is frequently hard to decide, especially from the standpoint of relieving the patient the most with the incurrence of the minimum risk.

The recognized operations are four in number: Extirpation. colotomy, posterior linear proctotomy and curettage.

Extirpation.—The ideal method of treating cancer of the rectum would be by extirpation, as is done in cases of the same disease when the mammary gland is the seat of trouble; but unfortunately it is not often that the rectal neoplasm is discovered in time to permit the entire removal of the growth and of all glandular involvement; consequently, it is my belief, that the cases in which this operation is indicated will always be confined to a relatively small number.

Colotomy.—On the other hand, colotomy is quite practicable in a large number of instances and the benefits derived from its performance are thus minutely described by Dr. Chas. B. Kelsey (*New York Medical Journal* for November, 1892): "It relieves pain; does away with the constant tenesmus and discharges from the rectum, which by their exhausting effects are the immediate cause of death; delays the development of the disease by preventing the straining and congestion of defecation; prevents absolutely the complication of intestinal obstruction, which is another cause of death; enables the patient to sleep, eat and gain flesh, and often makes him think himself cured in spite of the plainest prognosis to the contrary. Instead of passing his days and nights upon the commode, wearing out his life in his effort to free the bowel from its irritation, he has one or perhaps two solid fecal evacuations from the groin in twenty-four hours." The foregoing description of the benefits derived from a colotomy is no exaggeration. It is the operation to which I would cheerfully submit were I a sufferer from cancer of the rectum which had reached the stage of operative interference. In this connection I would cite the following case, which I consider a typical one for the operation of inguinal colotomy: T. J. P., male, American, aged 52, clerk by occupation, first consulted me in 1893. At that time his history was as follows: Parents dead,

one at the age of 60 of pneumonia, the other of rheumatism at 80. Oldest brother died at 40, of gastric cancer. Patient the youngest of seven children. Was healthy as a child. Married at 40. With the exception of lumbago and several attacks of presumed malaria he has enjoyed good health up to present illness. Has been a moderate user of alcohol but an inveterate smoker. No venereal trouble. For many years has been constipated. His present trouble began about four years before his visit to me. The pain in his back which he attributed to lumbago became worse. His bowels became loose. In the morning he would have apparently a normal fecal stool and later in the day one or more watery passages. The movements were attended by considerable straining and a sensation as though the bowel had not been entirely emptied. The urine was voided frequently during the day and he was obliged to empty his bladder several times during the night. Later on, he noticed that his passages, when formed, were not as thick as they had been—but what caused him anxiety was the fact that he passed about a tablespoonful of an offensive bloody fluid several times daily and the movements were accompanied by severe pain over the sacrum. These symptoms becoming aggravated and the patient being unable to rest comfortably in any position, night or day, together with the fact that he was steadily losing flesh and had no appetite, led him to consult me. At this time examination revealed the following condition: Varicose veins of both legs, but much worse on the left side. Cachexia not marked. External and internal hemorrhoids noted. A growth was detected about four inches from the anus, which was quite hard and nodular. Its upper limits could not be ascertained. Consent was given to perform an inguinal colotomy. Under ether anesthesia, the usual incision was made into the abdominal cavity and the peritoneum was drawn up and attached to the skin by sutures. The colon readily presented and, at the site selected for the artificial anus, a loop of it was brought out into the wound and a glass rod, four inches long, was passed at a right angle to the line of incision under the colon, through a puncture made in the mesentery; this was done so as to fix the bowel in the desired position. The intestine was then sutured around the wound to the skin and parietal peritoneum; seven or eight fine silk sutures being used on either side and the last suture at each angle being placed across from one side to the other. The suturing of the bowel in this manner prevented the protrusion of the small intestine and consequent danger of strangulation. (Fatal results from this accident are on record.) The dressing consisted of gauze placed between the glass rod and skin, so as to prevent undue pressure, and the lower stratum of gauze overlying the intestine was soaked in carbolized olive oil, to obviate any subsequent adhesion to the bowel, from the lymph filling the meshes of the gauze, which is apt to ensue unless this precaution is taken.

The patient did well after the operation and convalescence was all that could be desired. The intestine was opened on the third day. In two weeks he was allowed to get out of bed and in another week to walk about generally. By means of a home-made abdominal band and the application of pledgets of old linen and cotton over the artificial anus, he had and still has no difficulty in controlling the passage of wind and fecal matter. A truss was obtained for him but was not so comfortable as the abdominal support mentioned.

He gained flesh, was able to eat and sleep well and attend to his business. The pain and inconvenience previously suffered were greatly relieved. During this time opiates were occasionally required. At present writing (three years since the operation), and for a year past, he has suffered considerable distress from pain over the sacrum and has not been able to work. Opium has to be used daily. The growth has increased and causes considerable vesical disturbance. It is probable that the patient may live for six months or a year longer.

In an article read before the ASSOCIATION last year (Transactions, Surgical Section of the AMERICAN MEDICAL ASSOCIATION, 1895, p. 101–104), I went into a more extended discussion of the relative merits of extirpation and colotomy in the treatment of cancer of the rectum.

Posterior Linear Proctotomy.—I have never attempted to relieve malignant trouble affecting the rectum by means of a linear proctotomy. In benign stricture I have found it an excellent plan of treatment when combined with the subsequent use of bougies. Those surgeons who adopt this method for relief of rectal cancer speak highly of its efficiency, some going so far as to claim that it takes the place of both colotomy and excision. (Mr. Chas. B. Ball, F.R.C.S.I., Diseases of the Rectum and Anus, p. 336.)

Curettage.—In the present paper I desire to call attention to, and to emphasize, the value of curettage in those cases of cancer in which the disease is within the lower three inches of the rectum and its character of such a nature as to permit of its more or less complete removal by the curette. In selected cases the operation is followed by a diminution of pain, bearing-down sensations and discharge and the lumen of the bowel is enlarged.

Some patients object to having an artificial anus and refuse to have a colotomy performed; others consider the curettage of the growth a less dangerous operation and prefer a procedure which to them is less abhorent than the idea of an artificial opening, in an abnormal position, for the passage of feces. In some of these cases curettage can be done with decided benefit.

In certain cases the combined operations of colotomy and curettage will afford the patient much more relief than where one or the other procedure is individually adopted. It is true that only temporary relief is afforded by either curettage or colotomy, but in the majority of cases this is all we can offer the patient under any plan of treatment in vogue at the present time.

During the past two years I have curetted the rectum for the relief of malignant trouble in seven different cases. In only one case was the operation deemed unsatisfactory. This was in a patient of Dr. D. F. Greenwald, of Philadelphia, with whom I saw the patient in consultation. I am indebted to the Doctor for the following history: "Mrs. R. was treated by me (Dr. Greenwald) for a recto-vaginal fistula about five years ago. At that time there was no evidence of contraction of the caliber of the bowel and no other symptoms pointing to the presence of cancer. For a period of three years following the operation for fistula she suffered no discomfort and was able to pursue her usual duties. Two years ago she complained of pain during defecation, which was

attended by a discharge of glairy mucus, streaked with blood. Before examination a decided decrease or narrowing of the bowel was discovered about two and one-half inches above the anus. Antiseptic douches and the use of rectal bougies daily benefited the case for more than a year. She then complained of bearing down pains and the countenance assumed characteristic carcinomatous cachexia. These symptoms continued with greater severity until you saw her. After the curetting operation she was unable to leave her bed, her appetite failed, emaciation followed and death from exhaustion ensued in two months and three days."

Even in this case, which was a most unfavorable one for any operation, the patient was much relieved of pain and the two months she lived were certainly passed with more comfort than would have been the case had no operative interference been attempted.

The results following curettage are best described by recording the history of a typical case: J. M., a colored man, age 33, by occupation an engineer, applied for treatment at our clinic, at the Polyclinic Hospital, about two years ago. Family history negative. Personal history negative except a possibility of his having had syphilis; this fact the patient denied, but the records at the Pennsylvania Hospital, Philadelphia, where he had previously been treated, indicate otherwise. Present trouble began some three years previous to his coming under my observation, with bloody discharges from the rectum and a feeling of distress about the anus. He stated that on two occasions during this time he had been admitted into the wards of the Pennsylvania Hospital and had the rectum cut, and that this was followed by the passage of bougies. He dreaded so much the passage of the bougies that on each visit to the hospital, he left as soon as he could obtain his discharge.

At the time he came under my care, he had a more or less constant bloody discharge from the rectum, considerable pain at stool and for sometime following the movement; he was very emaciated. Examination revealed a mass occupying the lower two inches of the bowel, part of the mass protruding through the anus. Abdominal palpation indicated the presence of nodular masses within that cavity, especially marked on the left side above the sigmoid flexure. At first he refused operative interference, six months later he consented to enter the hospital.

Upon admission to the wards of the Polyclinic and after the lapse of several days, the patient was prepared for operation and upon the day selected, he was etherized, the sphincters were stretched and the growth was thoroughly scraped away with a sharp spoon curette. A week solution of permanganate of potash was employed for douching purposes. In some places scissors had to be used to remove the denser and more indurated portions of the mass. The bleeding at the time and after the completion of the operation was not alarming. The parts were fully dusted with iodoform and the rectum was plugged by means of a good-sized piece of gauze attached to a large rubber drainage tube, which latter had been closely fitted over a glass tube to keep it patulous, the rubber at the same time protecting the glass should it break by accident. Around the tube but within the folds of the gauze the packing was placed. The dressing was completed by a firm pad of gauze and cotton and a T bandage. Recovery from the operation was perfectly satisfactory, and in a month's time the patient was given employment in the hospital as an orderly. He had not been able to work for over a year previously. The gain in flesh was marked. For a long time he was given the iodid of potash, but any increase above five grains, thrice daily, produced nausea; no good effect was noticed from its use. Four months later the patient was in such good health that he married. A short while after this event the growth in the rectum was noticed returning and the discharge reappeared. Some pain was also complained of and later defecation was accompanied by considerable distress and difficulty. Six months after the first curettage he was again subjected to a similar operation. Ten days subsequently he stated that he felt well and was free from pain. Graduated bougies were now used daily. A month later, marked tympanites suddenly appeared and the patient was unable to pass either wind or feces. Various laxatives were employed and several enemas administered before the bowels were made to move, which was not until the third day. Several similar attacks ensued which occasioned considerable trouble before relief was obtained. Finally, the patient became confined to his bed through sheer weakness, and death occurred from exhaustion about nineteen months from the time I first saw the patient. The autopsy revealed cancerous involvement of the liver and intestines.

In conclusion I would roughly summarize the indications for the operative treatment of rectal causes, thus: Extirpation, to be considered only in those cases in which the disease admits of the hope of obtaining a permanent cure; colotomy, when the rectum is involved above the lower three inches of the bowel and the disease has produced an appreciable obstruction; curettage or a posterior linear proctotomy, or the two combined, for those cases in which the disease occupies the lower three inches of the rectum.

GASTROSTOMY FOR STRICTURE OF THE ESOPHAGUS, BY THE SBANIJEW-FRANK METHOD, WITH EXHIBITION OF PATIENT.

Read in the Section on Surgery and Anatomy at the Forty-seventh Annual Meeting of the American Medical Association, at Atlanta, Ga., May 5–8, 1896.

BY HUNTER P. COOPER, M.D.

PROFESSOR OF ANATOMY AND CLINICAL SURGERY IN THE ATLANTA MEDICAL COLLEGE, AND ATTENDING SURGEON TO GRADY HOSPITAL, ATLANTA, GA

The patient, C. F. J., age 27, male, white, entered the Grady Hospital as a private patient in my service on Jan. 28, 1896.

The following history was obtained on admission: About one year ago he took one swallow of pure nitric acid by mistake, causing corrosion of the entire mouth, lips and esophagus. The mouth and lips healed about three weeks after the sloughs separated. Several months previous to admission the patient noticed an increasing difficulty in swallowing; in the last few weeks this has gotten considerably worse, and he feels now that small particles of solid food are stopped before reaching the stomach, evidently low down in the esophagus. Liquids can still be swallowed slowly and with difficulty; it takes him as much as half an hour to drink a glass of milk. At times during the past few weeks the contraction in the esophagus closes to such an extent that for two or three days at a time he says he is unable to swallow

anything; then relaxation occurs and fluids will pass into the stomach. His diet is entirely restricted to fluid food. On admission I find him fairly well nourished, pulse and temperature normal, tongue clean, appetite good and pulse regular. On examining the esophagus with bulbous bougies three strictures are detected seven, seven and a half, and eight inches from the edge of the incisor teeth, and no more are encountered until the instrument has passed thirteen and a half inches down the esophagus, when it meets with an obstruction which will not allow an instrument of any size to pass.

Treatment: For a number of days futile efforts were made to get the instruments into the stomach, but without success. The largest instrument that would pass the stricture seven inches from the teeth was of the size of a twenty-two French urethral bougie. Nothing would pass lower than thirteen and a half inches. It was decided, therefore, to do a gastrostomy, and the operation which was selected was the Sbanijew-Frank method. I trust I may be pardoned for briefly describing this method, as it is not familiar to everyone.

The incision is about a finger's breadth below the costal cartilages on the left side, over the stomach. The first incision, three and a half inches in length, goes down to the muscles; the muscles are then divided in the direction of their fibres by blunt dissection. The peritoneum is opened in a line parallel with the edge of the costal cartilages. The stomach having been sought for and withdrawn from the wound, is drawn strongly outward by a ligature passed through its walls. Traction is made on this ligature by an assistant until a cone of the stomach three or four inches long is drawn out of the abdominal incision. While the assistant holds this cone in position by means of the ligature, the base of the cone is sutured to the parietal peritoneum all the way around.

The next step in the operation consists in making an incision through the skin, superficial fascia and areolar tissue down to the deep fascia. This incision is placed one inch above the margin of the costal cartilages, and its direction is parallel to that of the primary incision. By blunt dissection communication is made underneath the skin and superficial tissues between this incision and the primary incision. Through this communication the apex of the cone formed by the stomach is drawn; the wall of the stomach is sutured to the skin and the stomach opened. The primary wound is closed, the muscles being sutured seriatim and the skin incision sutured last. The advantage of this plan is that it brings the stomach through the abdominal wall in an oblique direction; a part of the stomach is included between the edge of the costal cartilage and the skin, forming a valve as it were. This device prevents leakage of the contents of the stomach during digestion, and is a great advantage over the old method of making a direct communication between the stomach and the abdominal incision.

The operation was performed on February 11, Dr. Elkin being present and lending me valuable aid. The patient was put to bed in an excellent condition; and for the next four days his temperature ranged between 98.8 and 100.2 degrees. At the end of that time his temperature rose to 102 degrees and pus was discovered in the wound. This was evacuated on the 16th by Dr. Nicolson during my absence from the city, and after that the patient convalesced without a bad symptom. The wound healed nicely. Feeding by means of the stomach proceeded every four hours, a catheter being introduced into the stomach for this purpose and only liquid food administered. I feel quite certain that suppuration was caused by the wound being infected by the escape of some of the contents of the stomach through the puncture made into its walls for the purpose of introducing the ligature. I closed this immediately on withdrawing the ligature by two or three Lembert sutures, but gas escaped quite freely before I effected a closure, and I am certain some of the secretions from the stomach got into the wound, producing infection. His fever from the suppuration lasted only five days.

The subsequent history of this case has been uneventful. He has gained in flesh and strength, and as you see, is perfectly nourished by means of the feeding through the artificial opening. A few weeks ago I began to try the passage of bougies through the stricture from above. During my absence from the city Dr. Elkin succeeded in getting a small bougie eighteen inches from the edge of the teeth. Dr. Ward, house surgeon of Grady Hospital, passed an instrument, 15 on the French urethral scale, twenty inches. On May 4 I passed No. 15 of the French scale, sixteen inches; in other words, two and a half inches below what was formerly an impermeable stricture. On the same day No. 22 French was the largest instrument which would pass through the stricture at seven and a half and eight inches respectively, from the edge of the teeth. It is my hope within the course of the next few weeks to be able to get through the strictures and divide them by Abbe's method. Of course, if this can be done the external opening into the stomach can be closed. There is so much cicatricial tissue present, however, that I fear it will be impossible to thoroughly divide it so that recontraction will not take place.

I should say in reference to this operation that the result is all that could be desired. The valve does its work very well, and there is practically no leakage at all. A little gastric juice exudes from the opening, but none of the contents of the stomach. He keeps a little pad over the opening to prevent the irritation, which the gastric juice causes when it comes in contact with the skin.

DISCUSSION.

DR. ROSENTHAL, Philadelphia—I have seen this operation performed by Dr. Thomas S. K. Morton. I would like to ask if there was any complication resulting in Dr. Cooper's case. I know Dr. Morton always fears this and gets his patients up as quickly as possible.

DR. THOMAS, of Pennsylvania—I would like to ask a question regarding the use of the Abbe ligature. If this ligature is used and the enclosure done away with, would not this stricture recontract and necessitate a repetition of the operation?

DR. FERD. C. VALENTINE—It might not be out of place to compare these strictures with urethral strictures. A French surgeon has presented 20,000 cases of stricture of the urethra treated by linear electrolysis and 200 strictures of the esophagus treated in the same manner. His instrument is that of a sound attached to a small guide in the shape of an esophageal tube with a curved tip of platinum on its inner concavity or outer convexity. When this has passed through the stricture he dilates from three to ten millimeters. This suffices to open the stricture at that one point sufficiently to begin a series of dilatations and make a useful canal.

DR. W. J. MAYO, Rochester, Minn.—I have had some experience in these cases and it seemed to me that Fenger's operation is the best for this particular class of cases. You make an attempt at retrograde dilatation. In two of my cases, I used Fenger's operation, but it is subject to great annoyance from leakage. The fact that one can make several attempts, however, is an important point. I do not understand how the Abbe string method can be used in this case. One of my cases was that of a child who swallowed some concentrated lime, causing a stricture which it was impossible to pass. I first employed esophagotomy and then made a gastrotomy wound. Although we were able to divide the upper stricture, we could not pass through the lower one and I then made Fenger's incision. The reason I refer to this is, that an oblique incision brings one in the direct line of the stomach, and through this I could nourish the child very well. External esophagotomy with a heavy sound inverted the stricture, and in that way we were able to pass the tube into the esophagus, which held the stricture firmly in place. In a short time we were able to close the external wound, but we continued the dilatation for some time. The second case follows Abbe's method more closely, and I got through the stricture at once and sawed it out. For fear that we might not have succeeded, we introduced a tube and the end of the string was carried to some extent, but we could not pass the sound afterward, as it seemed to catch in the folds. The Witzel tube enabled us to feed the child for a number of months. With regard to what Dr. Valentine says, anyone who has had experience in urethral or other forms of cicatricial stenosis knows that if you can get the probe in your work is done. I have looked this subject up very carefully, and especially in connection with LeFort's method, but found that he had not done much. He practically employed gradual dilatation with the aid of electricity, which to my mind does not mean anything. I congratulate Dr. Cooper on the result of his operation, which is very complete, and it is the operation of choice. While I do not wish to criticise the case, still I do believe that Fenger's incision and the direct wound in the stomach is better.

DR. VALENTINE, continuing—I wish to state that I know nothing about this subject as it relates to the esophagus. I have seen stricture of the urethra treated where a filiform could be passed only with great difficulty and precisely six months thereafter a No. 20 French went through the stricture without any pain or hemorrhage. This was done in Bellevue Hospital, New York, in the presence of a number of gentlemen.

DR. COOPER, closing the discussion—One good point about the wound is that if you should divide the strictures and they should recontract, you would have simply to reopen the stomach at the site of the former gastric fistula, and this could be very easily and quickly done. The other criticism in reference to getting into this wound, as you get into an ordinary gastrostomy wound, is not true. Your finger easily presses the tissues down. This method does not interfere with any technique should you wish to perform retrograde dilatation.

THE ABORTION OF GONORRHEA AND TREATMENT OF OTHER URETHRAL AND VESICAL DISEASES BY HYDROSTATIC IRRIGATIONS.

Read in the Section on Surgery and Anatomy, at the Forty seventh Annual Meeting of the American Medical Association, held at Atlanta, Ga., May 5-8, 1896.

BY FERD. C. VALENTINE, M.D.

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NEW YORK.

In a paper[1] read before the Society for Medical Progress, January 11 and before a Wissenschaftliche Sitzung der deutschen Poliklinik on January 17 of this year, as much of the bibliography of hydrostatic irrigations as covered the requirements was touched upon.

In that paper I described an apparatus which did away with nearly all the objectionable features of these irrigations. I now propose to submit some modifications which are the outcome of constant endeavor to so simplify and render safe the treatment of genito-urinary diseases, as to make at least the most frequent thereof available for the general practitioner.

The modifications of the apparatus I present, consist essentially in:

1. The substitution of a cast-iron ring to hold the irrigator. By this means, the irrigator can more easily be attached to any wall or bookcase.

2. A rubber tube made especially for this apparatus, doing away with the complicated connections, which formerly were necessary. The essential feature of this tube is that its lumen is *a quarter inch in diameter*, which enables the operator to easily overcome any sphincter vesicæ. The tube has expansions at both ends, the one to attach to the irrigator, the other to make the change of nozzles easy.

3. A stopcock nearly thrice as large as its predecessor. This prevents cramping of the hand, when frequent irrigations are required as must be made in the specialist's office. The lever of the stopcock's button now has three catches, by means of which three forces of stream are obtainable with no more effort than a slight motion of the thumb.

4. The shield's neck is enlarged and rough-ground within. This facilitates its being slipped over the nozzle, when attached to the hose, and also attaches it firmly to the stopcock. The apparatus as described is made as were its predecessors, by F. Alfred Reichardt & Co., of 27 Barclay St., New York.

As far as the surgeon is concerned, these alterations of the mechanism prove convenient to a degree which a comparison with my former apparatus at once reveals. As regards the patient, experience has demonstrated that the tension of the urethra, which was occasionally somewhat painful in new cases, is now more quickly overcome. This I attribute to the large caliber (one-fourth inch) of the tube.

The technique of these irrigations is not essentially modified by these improvements, except that now, in but very rare cases, is the patient required to breathe deeply and to strain, as if at urinating.

The theory upon which this treatment is based, can be outlined in a very few words. If the sole purpose of the treatment were to merely wash microbes and pus from the surface of the genito-urinary mucous membrane, such serious consideration would not be necessary. But as the microbes that we must combat deeply invade the tissues of the urethra, mere washing away of those which rest upon its mucous surface would prove useless. Manifestly we can not follow the gonococcus into the tissues, but by these very copious washings we cause the mucous membrane to take up large quantities of water. The resultant artificial edema, renders the urethra a bad culture-medium for gonococci. In practice, whatever may be our theory, the results are oftentimes more than astonishing.

The difficulty of obtaining statistics of gonorrhea, are all too well known. As I have shown in another paper ("When may gonorrheal patients marry?" *American Medico-Surgical Bulletin*, Oct. 1, 1895), gonorrhea is still too lightly viewed by the laity to make reliable data obtainable in large numbers. I may, however, cite from those cases which I could observe from the beginning of the muco-serous discharge in which gonococci were present. *Every one of these recovered entirely within thirty-six hours.* Cases in which the discharge had grown distinctly

[1] The Technique of Urethral and Intravesical Irrigations. Clinical Recorder, February, 1896.

purulent, when not complicated, recovered within ten days. Chronic cases, which had lasted for months and years, recovered in varying lengths of time. The most marked case among these was that of a physician, who had persistently treated himself for gonorrhea (perhaps with reinfections and auto-reinfections) for twelve years. In two days the copious yellowish-green, blood-streaked discharge grew watery; in five days the gonococci disappeared; in eight days the discharge was entirely gone.

It may be well to explain here what is meant by "cured." After the discharge ceases, the patient is not treated for a week or ten days. Then, no discharge reappearing, he is ordered to drink at least twice the quantity of beer to which he is accustomed. No discharge resulting after another lapse of ten days, he is given a strong, irritating injection of nitrate of silver. If the resultant discharge, which lasts from eight to thirty-six hours, contains no gonococci all restrictions are removed, except that the patient is requested to bring the next seminal emission resulting from coitus condonatus, in the same condom. If this contains no gonococci, and anterior and posterior urethroscopy show a healthy urethra, the patient is discharged.

These experiences, not few in number, are from those cases in my private practice that were not complicated with other affections. In those, the cases were delayed by the complications, whose removal in many instances was aided materially by the irrigations.

Berthold Goldberg,[2] of Cologne, has most carefully compiled the literature of the subject. He finds that of the cases treated by systematic intravesical irrigation, 60 per cent. recovered in less than ten days, 30 per cent. recovered in two to three weeks, and 10 per cent. mischanced. One-half of this 10 per cent. was attributable to avoidable causes, disobedience of patients, repeated excesses, etc. The remaining 5 per cent. distinctly resisted treatment, but would still more have proved unamenable to other forms of medication.

Goldberg's experience and that of others lead him to conclude that carefully systematized irrigations with potassium permanganate: 1, are indicated when gonococci are present; 2, are contraindicated in acute inflammatory conditions; 3, permanently remove the gonococci in 95 per cent. of far more than half the cases, within one or two weeks, in any stage of the disease; 4, are reliable as a means of aborting gonorrhea; 5, the successes are due to coincident mechanical and chemic effects. This author adds that the irrigations may also exercise a genuine, specific antigonorrheal influence.

My investigations lead me to except only Goldberg's second conclusion. The contraindication in acute local inflammatory conditions would necessarily be in pain; this is easily and quickly overcome by an injection or two of cocain.

Several authors, notably among them my best of friends, Hans R. Wossidlo of Dresden,[3] did not obtain such favorable results. An analysis of their writings shows that they either did not follow the treatment in that systematic manner these cases require, or were unfortunate in having intractable patients. Wossidlo, however, asserts that as means of aborting gonorrhea, this method has the decided advantage of easy execution; that in acute and sub-acute gonorrhea it yields a large percentage of favorable results in as far as concerns stopping the purulent discharge and causing the gonococci to disappear; but that in chronic gonorrhea, it is not equal to Oberlaender's methodic dilatations.

I am glad to avail myself of this opportunity to express my obligations to Wossidlo for leading me to adopt Oberlaender's method, both of examining and treating the diseased urethra. The profession owes a deep debt to Oberlaender for his method, which does away with that odium upon physicians and long wearing source of grief to patients—chronic gonorrhea. But in its treatment, while I follow Oberlaender closely, I never neglect to add irrigations. The combination has invariably yielded most satisfactory results. These will be testified to by the many colleagues throughout the United States who have honored me by their confidence in sending me those cases, or who have so treated them at home.

But, aside of all other considerations, let us view the practical advantages of these irrigations.[4] If the method is correctly followed: 1, the disease is cut short; 2, pain is stopped; 3, no complications ensue; 4, no hand injections are used, with their unreliability; 5, no drugs are given by the stomach; 6, the patient can not peddle prescriptions.

The last is as important as any. As in other diseases, the patient is likely to assume that the last prescription he received, even if it were a cough-mixture, is the one which cured his gonorrhea. He gives copies to his friends similarly affected; they do not improve and the physician's reputation is accordingly damaged.

These facts should cause this method to be adopted by all practitioners, especially now that its application is so easy, by the apparatus which I have the honor of demonstrating.

A discussion of all the diseases in which urethral and intravesical irrigations prove useful would carry beyond the limits of this paper. The most frequent ones need only be mentioned; to suggest many others:

Catheter-Fever.—Since I made it a rule to irrigate the bladder, by means of the apparatus herein described, after any instrumentation of the urethra or bladder, I have never seen a case of catheter-fever.

Cowperitis, Folliculitis and Seminal Vesiculitis do not contraindicate irrigations.

Cystitis and Posterior Urethritis.—The posterior urethra being practically a part of the bladder, diseases of both these regions are best considered together. If the inflammation is acute it may be well to treat it in the usual manner; but as soon as the patient can bear them, careful, gentle, mild irrigations will yield most satisfactory results. In this connection it must be remembered that the mucous membrane involved is not only very sensitive to irritation, but that sudden

[2] Centralblatt für die Krankheiten der Harn- und Sexual-Organe, Band VII, Hefte 3 und 4.

[3] Centralblatt für die Krankheiten der Harn- und Sexual-Organe, Band VII, Heft 2, 1896.

[4] Swinburne, after averaging thirty irrigations a day for two years, concludes a paper on "Permanganate of Potassium in the Acute Stages of Gonorrhea." (American Medico-Surgical Bulletin, Feb. 1, 1896) as follows: "Yet with this method, crude as it has necessarily been, the results have been far better than with methods previously tried. While I do not claim a cure in all these cases, yet I do claim for this method: 1, marked lessening of discharge, so much so that it ceases to engage the patient's attention; 2, a shortening of the course of the disease; 3, relief from the many troublesome symptoms so often noted in the course of the disease; I almost never hear a patient complain of chordee; 4, far fewer chronic cases; 5, fewer cases followed by stricture; 6, fewer cases where instrumentation is required; 7, fewer cases of posterior urethritis; 8, fewer cases of epididymitis; 9, fewer cases having secondary invasions of the mucous membrane from other microbes; 10, a larger proportion of complete cures than with any previous method with which I am acquainted."

distension produces much pain. In chronic cystitis and posterior urethritis, irrigations are exceedingly well borne and yield excellent results.

Epididymitis and Orchitis.—Goldberg and others treat these cases with ointments and Zeissel-Langlebert-Casper suspensory bandages until pain has subsided, before irrigating. If the case is one-sided, I strap the testicle and irrigate at once. If both testicles are involved I use Wossidlo's method. This consists in applying the galvanic current, two to eight milliampères, for from three to fifteen minutes daily. Then I apply a suspensory bandage and irrigate at once.

Neurasthenia.—This affection, from which no genito-urinary case is entirely free, yields as the disease is relieved; but even in pure, essential sexual neurasthenias, irrigations render the most surprising results.

Prostatitis.—Acute prostatitis may be left to subside, which it does very soon under appropriate treatment. It does not however contraindicate careful irrigations of the anterior urethra. In chronic prostatitis the gland should be emptied by daily massage through the rectum before irrigating.

Retention.—If a patient suffering with retention acquires gonorrhea, Goldberg deems irrigation contraindicated. I hold that such cases must be relieved with carefully sterilized instruments and the irrigations used.

Secondary Syphilis.—Patients affected with secondary syphilis are said to bear irrigations badly (Goldberg). This has not been my experience.

Strictures.—It would seem that the artificial edema we strive to produce in gonorrhea might offer danger of retention if the patient also has a stricture. In such cases the Oberlænder method yields most brilliant results, especially when associated with irrigations.

Tuberculosis.—When tuberculous cases are not very low or in fever their gonorrhea can be treated as in other patients. Indeed, the very character of the disease should command hasty removal of the additional infection (Goldberg).

It is my hope that these roughly drawn suggestions will sufficiently interest practitioners to lead them to test this method of treating urethral and vesical diseases. If the results others obtain should promote further development of treatment by able men, suffering humanity will be benefited and I will have taken up your time to some purpose.

DISCUSSION.

DR. CHAMPION, Atlanta—Dr. Valentine demonstrated his method in my office yesterday and in a patient without a stricture, he succeeded. Only a No. 12 of the French scale could be passed. I have been using this method and see no reason why I should make any change. In fifty cases that have been recorded, only one case of epididymitis developed. I think every case of gonorrhea should be treated by irrigation.

DR. OLMSTED, Atlanta—I would like to ask about the time of irrigation, that is whether the Doctor irrigates as soon as the patient comes to his office or allows the acute symptoms to subside. Also whether he injects the bladder in all cases at once.

DR. ROSENTHAL, Philadelphia—I remained over on purpose to hear this paper and to discuss it. I have seen some very bad results from gonorrhea, and these results often lead to pus tubes, inflammation, etc., in women. Inflammations of Cowper's gland, the bladder and the ureters are serious complications and if we can remove the contagion we should certainly try to do it by trying all methods so as to see if there be any truth in the assertion made by any one. In Pennsylvania, we have passed a law which compels midwives to at once send for a physician upon the birth of children suffering with ophthalmia and we have institutions under State and Quaker supervisions for those affections. We have such authority as De Schweinitz and others who show that these cases are due to gonorrhea. In the report of 1,000 cases in the Philadelphia district, in every case it was found due to gonorrhea. I shall treat the next case of gonorrhea that I have in the same way as Dr. Valentine and hope that my result will substantiate his claim. If we can irrigate the urethra of a man successfully, for the sake of his wife and children we should use such means as we have seen to day.

DR. THOMAS, Pennsylvania—I think from this demonstration to-day one would think it was a very easy matter to treat gonorrhea, but I would state that this is not the case. With regard to latent gonorrhea, I must confess I do not know what it is. Supposing a case comes to us with a secondary gonorrhea and there are lesions of the previous attack existing in the urethra. You can not cure that case in four or five days or even weeks, I do not believe that a cure is possible under any circumstances in two or three days. Now take gonorrheal ophthalmia, which is a condition right under your eye and finger. You can irrigate this conjunctiva several times a day and you can keep it cleansed for many months, but by this treatment, although you may control it to some degree in two or three weeks, it is not cured as a rule, even under the care of the most competent oculists in three weeks or even in six weeks. The acute disease may be over but there is some of the sequelæ left that can be seen in the eyes. I believe that the method suggested is a very good one. It is one that I practice continually but not exclusively. Another excellent method is to inject the urethra, after first cleansing it, with a solution of nitrate of silver four grains to the ounce, once daily for two or three days, and then irrigate the urethra with some milder solution. I have followed this in nearly all of my treatments with considerable success, but I have not yet seen a case that was cured in two or three days. In secondary gonorrheas that come to us for treatment, you have to consider the pathologic conditions that remain from the previous attack and cure this before you can get a cessation of the discharge.

DR. WILLIAM PERRIN NICOLSON, Atlanta—I would like to ask how long the reaction is to continue, how soon it is repeated, and how long the first sitting occupies. As to the injection of the bladder without a catheter, I remember Dr. Hunter McGuire performing this with an ordinary Davison syringe more than twenty years ago.

DR. VALENTINE, in closing the discussion—I will send reprints to any of the gentlemen who may wish them in order that they may familiarize themselves with the methods. Dr. Champion said that he is not convinced that the method of irrigating without a catheter is an altogether desirable one, but I am sure he will not use a catheter again after reading the literature I shall leave with him. With regard to irrigating at once, if I did not there would be no treating of the gonorrhea and no time would be gained. Unquestionably, irrigate the moment the patient comes into your office after you have shown by microscopical examination that he has gonorrhea. Do not let the acute symptoms subside. If the disease is located in the anterior urethra, irrigate in the morning and again in the evening from one to three days. Then give one posterior irrigation which will irrigate the bladder as well. On the fifth or sixth day again irrigate the anterior urethra, morning and evening and say on the eighth day give another anterior and posterior. Dr. Rosenthal suggested that my assertions should be tested and I hope they will. There have been sufficient statistics given to prove its efficacy, a French surgeon having employed the method in about 20,000 cases, a German in 10,000 cases, Goldberg in 2,000 cases, Swinburne of New York, in an average of 30 cases daily for two years and my own experience numbers about 3,000. I thank Dr. Thomas for criticising me so severely. He is right in saying that it is not an easy matter to treat gonorrhea and we must always do with some degree of apprehension. By this method I think it is easier to treat than by any other. Dr. Thomas also said he did not know what latent gonorrhea was, and I must say I do not know what it is either except that it is a very convenient term. It really means the lurking of the gonococci without the manifestation of symptoms except under special exciting circumstances. During the sexual life, especially after marriage, the crypts, glands and follicles are more frequently washed out, and not only may they infect the urethra but in a number of cases they may carry contagion to the female. The Doctor states that gonorrheal ophthalmia is not cured in five or six weeks and this is true. You can not subject the conjunctiva to the hydrostatic pressure that you can the urethra. While the pathologic character of the conjunctiva resembles that of the urethra, it certainly is of a different character, and you would not care to induce the edema, which makes the urethra a fair culture ground for the gonococci. Again, Dr. Thomas states that he has not seen a case

that he could cure in five days, and I agree with him that they are rare. We should not call it gonorrhea unless we have first found the gonococci. The experiences of men who have worked in this matter much more than I have shows that the cases are cured. A Berlin surgeon, who does not consider my method alone, says that it was successful under circumstances like those we have discussed. Dr. Nicolson asks how long the edema lasts, and I would say from three to five days. He also asks when I irrigate again; at the next sitting; ignore the edema. I was delighted to find that I could not claim priority in irrigating the bladder. I may be permitted to mention that Dr. J. B. Crossfield did this operation in the year 1791.

PLASTIC SURGERY.

Read in the Section on Surgery and Anatomy at the Forty-seventh Annual Meeting of the American Medical Association held at Atlanta, Ga., May 5-8, 1896.

BY F. W. EPLEY, M.D.

NEW RICHMOND, WIS.

Recent developments have shown, I believe, very clearly, that in the light of modern surgical methods we have not been living up to our privilege in our operations upon the surface of the body. The wonderful field which antiseptic and aseptic methods have opened up to the operator within the cavities of the body has so occupied the attention of the aggressive surgeon, that surface surgery has to a considerable extent been neglected.

This I believe to be due, partially at least, to the unwarranted warning which came to us from high authority soon after the advent of antiseptics, that they could not be used in plastic surgery, or at least in grafting, and further, that local anesthetics, such as cocain, were inadmissible. If this were true, we might be excused for accepting it and contenting ourselves with the infinitesimal groat of skin which we have been wont to plant in its regular orthodox one-half inch from the sound skin, and one-fourth inch from its fellow invader. But fortunately it is not true. Neither is it true that we must use split leather in a saline solution, "à la Thiersch," to repair our hides which have suffered a solution of continuity. On the contrary, experience teaches us that the whole skin, clear down to the cellular tissue, is at our disposal for this work, and further that we may and should use antiseptics and local anesthetics freely in our deliberations. And last but not least, we find that *the size of a piece of skin which can be successfully transplanted is limited only by our facilities for obtaining and properly handling the same, and the size of the space to be covered which can be brought into proper condition to receive it.*

Further, we can not by taking thought add a cubit to our stature, but we can, by a little thought, save the generous donor of one of these large pieces of skin a vast amount of annoyance, discomfort and pain, by making the pieces of skin removed boat-shaped at the ends instead of square, thereby enabling us to close the ugly wound at once with a continuous suture, leaving only a straight seam which will heal by first intention instead of leaving a wide, square, open wound, with no expectation of healing whatever, apparently, and which will sometimes exhaust the patience of all parties to the transaction.

In proof of these statements, allow me to report a case: On June 27, 1894, G. H. a car-sealer, had the whole bottom and flesh on the sides up one-half to one and one-half inches torn from his foot by a car wheel passing over it. Not only the skin but all the flesh was torn from the bottom of the foot leaving the bones bare so they could be counted. The os calcis was left as bare and white as a porcelain door-knob. In addition to this the skin upon the top of the foot was bruised in a shocking manner so that nearly all the epidermis up to and above the ankle joint turned black and eventually came off. Strange to say only two bones were injured and they were small ones and only to a limited degree. After careful examination I decided to try what modern conservative surgery could do and declined to amputate. The foot was anesthetized by injections of a 4 per cent. solution of cocain and great care taken to make it clean, to remove all the tissue injured beyond repair and keep it antiseptic. Soon granulation tissue sprang up and covered all the bare bones. This was allowed to grow until the bottom was well cushioned over, when the foot was kept in proper shape by careful bandaging. On July 30, about a month after the injury, I began skin grafting in the usual way, placing small pieces of skin about the size of one-half a kernel of corn about one-fourth inch apart and about the same distance from the healthy skin all around the edge of the same. This process was carried on successfully until the sole proper was reached, when a different method was adopted in order, if possible, to avoid contraction of the skin and as much as possible to do away with scar tissue which experience has shown will not support the weight of the body. To accomplish this desirable result I resolved to try to transplant solid skin. Accordingly, on August 26, two months after the accident, a piece of solid skin two inches wide and over three inches long was removed from the calf of a friend's leg and placed across the ball of the wounded foot. This was a perfect success. So much that at the end of a week on cutting this transplanted skin the patient's blood flowed from it freely. On September 3, a piece of skin two inches wide and five long was taken from the arm of another friend, each piece being about one and one-half inches wide by five long. These transfers were followed by the same gratifying results, every vestige of skin removed retaining its vitality and growing firmly to the injured member. On September 9, fifteen large grafts about the size of a good kernel of corn were taken from my son's arm to cover two small corners not covered by the larger pieces. All these transfers having been so successful I decided to proceed to cover all the remaining surface, not covered by skin, at the next sitting. This was done on September 16, when one piece two by five inches and another two by five and one-half inches were taken from the arms of two more friends and the whole foot was covered. Every transfer was successful and in all fifty-two square inches of skin had been transferred in six large pieces from five different donors, and is to-day part and parcel of George Hibbard's anatomy. Beside, more than 300 smaller grafts from four other donors, making in all nine different contributors to the scientific repair of a railroad injury. And every one of them would willingly contribute as much more for the same purpose should occasion require. The skinning process was entirely painless, the healing rapid and the scar insignificant. The size which I have found most practical is about two by five inches. The best place to obtain it is just below the insertion of the deltoid muscle. This is not a very sensitive locality, is easily dressed, the skin is of proper thickness and texture and well supplied with blood vessels, while the wound here gives least annoyance to the donor.

Operation.—The donor should be seated in a com-

mon chair. His arm should be made aseptic in the usual manner; then antiseptic with a 1 to 1,000 bichlorid solution. Eight punctures with an hypodermic syringe should be made just outside the line of the proposed incision and about fifteen minims of a 4 per cent. solution of cocain, freshly prepared with sterilized water, injected into each puncture. Ligate the arm just above the elbow, not too tightly. Now surround the arm with several layers of gauze wet with 1 to 1,000 bichlorid solution. Place the patient in a position which will bring the wound in good light and most accessible. It must be *perfectly clean*, then rendered antiseptic by the free use of 1 to 1,000 bichlorid solution. It is most important that all weak granulation tissue be scraped gently, or shaved off, and open mouthed vessels oozing bright blood, in every part of the space, should be covered. Now bind, not too tightly, a pad of gauze wet with 1 to 1,000 bichlorid solution closely to the whole oozing surface and the wound is ready. When this is removed the surface will be clean and free from blood, all clots having been caught in the meshes of the gauze. Now remove the gauze from the donor's arm; put the skin upon the stretch, quickly block out the piece to be removed by cutting *clear through the skin* down to the cellular tissue. Carefully dissect up the upper point of the boat shaped area, securely fasten the hooks on the skin fork into the end of the flap, and as the skin is carefully cut, not torn or scraped, away from the subcutaneous tissue, roll it upon the skin fork, care being taken to roll up nothing but the skin free from blood clots or fatty tissue. Again, bind up the donor's wound with the bichlorid soaked gauze and he can wait until you have time to attend to him. Now remove the pad from the patient, apply the free end of the roll of skin to the wound and quickly unroll it upon the raw surface. If it does not fit it matters nothing; let it extend over upon the skin of the patient. It will live so far as the surface is denuded and the surplus skin will die and can be trimmed off later. The graft should be neither stretched nor pinched, but gently unfolded and smoothed out. Over this apply strips of rubber tissue just taken from 1 to 1,000 bichlorid bath; over this sprinkle a thin coat of iodoform, and then the usual gauze dressing, care being taken not to slide the graft upon its bed or bind it too tightly—just sufficient to make it secure. Now remove the gauze from the donor's wound and carefully draw the edges of the skin together with either a continuous suture or interrupted sutures closely put, dust with iodoform, cover with protective, reinforce the sutures if necessary and dress with gauze. Skin transplanted in this manner and cut forty-eight hours later will bleed even when placed upon the sole of the foot.

I wish to lay special stress upon three things, in closing. Use antiseptics freely, if you wish, cocain fearlessly, and make the donor's wound boat-shaped. The skin fork spoken of and the knife for removing the graft which I have devised, I have with me and will gladly exhibit to any who may wish to see them.

DISCUSSION.

DR. J. MCFADDEN GASTON, Atlanta, Ga.—I would like to supplement one or two points in connection with these papers but not to enter into the discussion. It strikes me forcibly that with the advanced views we have in regard to antiseptic treatment of wounds and the aseptic treatment of wounds, that we should dispense with the use of corrosive sublimate which is suggested in the first paper and referred to in the second. The gentlemen who have the most advanced ideas of aseptic surgery do not use this substance and I would like it illustrated how far it should be relied upon to correct deformities of this kind. I once encountered a case where the entire sole of a foot was torn off. I do not remember whether the bone was denuded or not. I depended upon traction with adhesive strips to bring the edges together and ultimately a very small surface was left for granulation so that the result was good. In another case of extensive laceration of the head and neck I dissected flaps from the shoulder, drew them up and connected them with the edge of the skull and by this traction succeeded in covering the part which had been denuded. I wish to call attention to a method that has not been alluded to and in fact has been overlooked to a great extent. Dr. Wilson of Louisville, published the method about fifteen years ago. It is to use the inner membrane of the egg for a granulating surface and by its use granulations are set up and you will usually get good results. Since its publication by Dr. Wilson, there has been a reappearance of the article drawing attention to the idea as having been introduced by a German. My experience with this method is limited but it has been sufficient to satisty me of its efficiency. I remember one case in which I materially lessoned the surface for granulations by this method.

DR. EPLEY.—With regard to the use of corrosive sublimate, it has been deprecated I know, but I have found it of vast advantage sometimes. It has been my experience that skin transplanted in the way I mention would grow notwithstanding the fact of the number and size of the pieces. This method is of great advantage where you wish to preserve the elasticity of the skin. By all other methods with which I am acquainted you lose the elasticity of the true skin.

A TRIBUTE TO THE MEMORY OF EDWARD JENNER.

FORTY YEARS OF PERSONAL EXPERIENCE IN THE USE OF VACCINATION FOR THE PREVENTION OF SMALLPOX.

BY CHARLES N. HEWITT, M.D., M.A., LL.D.

PROFESSOR OF PUBLIC HEALTH IN THE UNIVERSITY, AND EXECUTIVE OFFICER OF THE STATE BOARD OF HEALTH OF MINNESOTA.

The truest homage one can pay to a discoverer is personal and successful trial of his discovery.

I have had exceptional need of help in dealing with smallpox in more than 100 outbreaks of that disease during forty years of active practice of my profession. The experience began in private practice, was considerable while a surgeon in the army during the rebellion, and has been very large in twenty-four years of service as executive officer of the Minnesota State Board of Health.

Minnesota has had a large and steady immigration, both foreign and domestic, which has brought smallpox into townships, villages and cities, as into lumber camps and among the Indians.

One of the epidemics numbered over 300 victims, two others exceeded 100 each, but the most were limited epidemics.

For the last five years the disease has been almost wholly confined to the first affected. No more epidemics can occur in Minnesota, nor other than very limited local outbreaks, under our present methods of control, of which the essentials are positive knowledge of the facts, vaccination and re-vaccination, with isolation of the sick and suspects, and disinfection of persons and things.

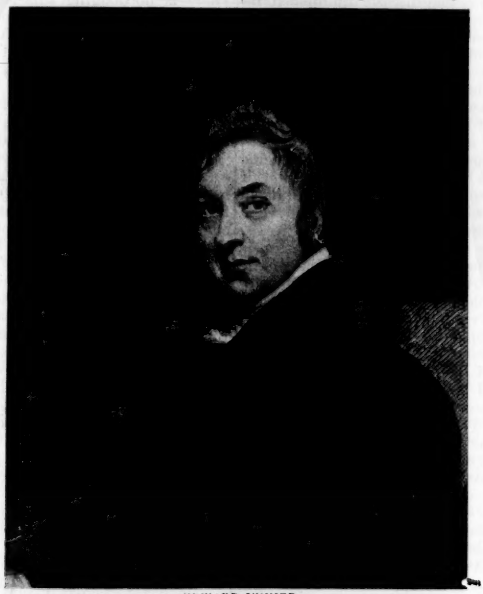
The authority and responsibility of the State and local Boards of Health are mutual, and are recognized and insisted upon by the people.

In most of these outbreaks the writer has personally visited the victims as he would sufferers from any other disease, taking no precaution except to avoid being the carrier of the infection to other people. His personal exposure has necessarily been frequent and prolonged, but he has, with a confidence justified by the results, relied upon the protection afforded by

a vaccination with humanized lymph, done in infancy, and not, successfully, repeated since. To my mind this frequent exposure, and entire immunity from infection, are the most positive evidence I can give of the value of vaccination and of my absolute confidence in it. No other means of protection were used, and every known means of infection, except direct inoculation, were deliberately permitted.

There is a noteworthy reason for formally recognizing the value of vaccine at this time, beside the fact that it is the centennial of its discovery.

Professional opinion has been driven, by the wonderful discoveries of modern pathology, and the dogmatic assumptions founded thereon, to the belief that every specific disease has not only a specific cause (a self-evident fact), but that such specific cause is so, because it is a *particulate, pathogenic, living* vegetable or animal, or the *product thereof*. In small-pox and cowpox the specific causes are as much mysteries to-day as in Jenner's time.



EDWARD JENNER.

The only explanation offered by a representative bacteriologist, so far as I know, was by Pasteur in his eulogy of Jenner, when he stated that we only lacked the proper culture medium, for as the bacteria of tuberculosis, enteric fever, etc., were discovered in this way, it could only be a matter of time and improved laboratory processes when these specific microbes should be discovered also. That discovery has not yet been made for smallpox and cowpox.

The foundation fact for Jenner's work was this: For many years the dairymaids of Gloucestershire had observed that if they took the cowpox from the cows before they came to be inoculated for the smallpox (the customary way of reducing its malignancy and controlling its spread at that time), they could not "take" the smallpox but were in fact protected from it. Jenner verified this fact, and then went on to demonstrate that inoculation with cowpox, by the insertion of a bit of its peculiar product, vaccine, under the skin of a human being, induced the disease itself, which ran a peculiar and harmless course, and that such a person was not only protected from the direct inoculation of smallpox (as the dairymaids had discovered), but "from catching it" in any other way, and that the protection, probably, lasted for lifetime. He distinguished cowpox from other diseases of cattle; described perfectly the progress of the disease in man, the appearance of the vesicle day by day, its gradual decline, dessication and falling off, with the typical appearance of the scar it left. The illustrations and descriptions in the first edition of his book can not be surpassed to-day.

Of no other discovery in medicine can it be said so truly that the statements of the discoverer *remain facts* one hundred years after, though submitted to the criticism and trial of all the nations of the earth.

The modifications which experience has suggested are in details only:

1. That at least four perfect vesicles should be secured, as increasing safety and permanence.

2. That as smallpox sometimes recurs, even after a severe attack, so (but always in a modified and comparatively mild form) it may happen after successful vaccination, and therefore vaccination should be repeated after puberty, and whenever one is directly exposed to smallpox.

Jenner's rules were very simple and may be summarized as follows:

1. Be sure of the purity and activity of your vaccine.

2. The patient to be healthy, the operation to be carefully done, and the vesicle preserved unbroken, and allowed to run the natural course till the crust fall off and leave the perfectly healed scar.

3. To take the vaccine for use not later than the eighth day and from a typical vesicle.

Under these conditions I have put vaccination to very severe tests, under diverse conditions, upon great numbers of people, of all ages, occupations and nationalities, alone or in co-operation with my professional brethren.

The result has been that it has proved a safe reliance, has never been the carrier of other disease, and has never failed to prevent the spread of smallpox, when used as directed.

Even when used within four days after exposure to smallpox, it has modified that disease, diminished its danger and the subsequent pitting. I have always produced my own humanized vaccine, or obtained it from professional friends who used the same methods. As to calf lymph, this course was impossible, and I have frequently been deceived. In a long experience I have never seen other infectious disease associated with humanized or calf lymph, *collected under proper precautions, and used as Jenner directed.*

Up to five years ago I used humanized vaccine almost exclusively, but had sometimes to resort to calf vaccine, the best I could find, till I could establish a supply from infants, which I never fail to do when dealing with a smallpox outbreak.

Humanized vaccine by "arm to arm" transfer is still the favorite method, I think, among the public vaccinators of Great Britain, and when I was in Dublin in 1889 I saw typical vesicles upon the arms of children, produced by vaccine which had come in that way from the first supplied by Jenner himself a century ago. I make this statement on the authority of the Local Government Board of Ireland by its secretary. As for myself I have no evidence that humanized vaccine loses power by transmission through healthy children, and I believe that it does not.

While abroad, at the time referred to, I visited and studied the processes of cultivating vaccine, of both varieties, in all the leading stations in Europe and brought back with me calf lymph with which I began its cultivation, for our own use, in Minnesota.

I have been reasonably successful, having produced many thousands of points, and tested the vaccine upon nearly 2,000 children with no other than typical results. It has been supplied to many Boards of Health, and physicians who have reported to me over 50,000 results, which were normal with few exceptions, in which they were associated with broken vesicles or crusts torn off before the scars had formed. My experience with calf lymph has been favorable, while its manageable production, facility of preservation, and the professional preference for it, have made its cultivation a necessity.

For all that, I freely declare my own preference for vaccine from healthy infants, as in my experience, more generally active, prompt, and operating with less severity than calf lymph. As noted before, I always use it in the presence of smallpox, being able to get it directly from the infant within nine days.

It is very unfortunate that medical men permitted themselves to be drawn into the controversy inaugurated when the commercial production of "heifer vaccine" began in this country. Its motive was not so much truth as to displace humanized vaccine. The profession has the right to assume as much honesty on the part of producers of humanized lymph, as of animal, and that neither product will be put on the market except as it has proved to be typical by every test which practical experience has suggested. That, honestly done, both varieties of lymph will be found reliable.

I know, from ample experience, the truth of the above statement, and that there is no difficulty to one familiar with either form of culture in judging the quality of the product by an examination of the vesicle at the proper time for collecting the virus.

It must never be forgotten that cowpox is as real a disease as smallpox—Jenner thought them identical—and that vaccine is the product of disease, which inoculated into the human body reproduces cowpox. There is no dodging this statement, and yet some producers and physicians imply that it is not true by the carelessness with which they handle vaccine, perform vaccination, and deal with its normal results or the "accidents" which, in careless hands, sometimes follow it.

Vaccination is *a surgical operation*, slight certainly, but sufficient to admit dangerous infection should it accompany the vaccine. Very rarely does "accident" happen in this way, for (a rule with few exceptions) it is only when the vesicle is broken; its normal development interrupted, and an open, irritated wound replaces it, that other infection may come in and cause serious complications. For these the vaccine is no more to be blamed than the careful surgeon's knife under similar circumstances.

To avoid these so-called "accidents" is as important as the selection of the vaccine, because they may not only cause pain and needless suffering, but destroy the virus or interrupt its operation.

I have had occasion to examine so-called vaccine scars upon persons who responded to vaccination or smallpox in a way proving that they had no vaccine protection at all. The notion that any irritation which follows the use of supposed vaccine, or any scars which concludes such irritation, is proof of vaccine protection, is as absurd as to gauge protection by the severity of the result, and the size of the scar, though this is a common opinion.

The fact is that the typical vesicle, or scar, of Jenner can not be secured by the customary method of operating.

I will state the method which I find to be the best after many experiments. Its advantages are as follows:

1. To reduce the danger of wound infection to zero.

2. To produce typical vesicles and only as many as are necessary for the greatest protection and durability of result.

3. That the scar may be typical.

4. Preferred location front of left arm, or crown of shoulder.

5. The vaccine should be fluid when used and the wound thoroughly dry before clothing is replaced.

To secure these self-evident advantages use a new cambric needle as the instrument. In the clean skin make five little pricks just deep enough to start the blood, and about an inch apart. Then with the point of the same needle, charged with the virus, gently prick it into each wound, carefully. The pain need not "wake the baby," and the wounds will be closed

in a few minutes, and healed in six hours. In this way infection by wound is practically impossible. In thirty-six hours all traces of the operation should be gone. In about thirty-six hours more, if the vaccine is to "work," a "mosquito bite" appears over the site of each wound; that gradually increases into a little vesicle, which in turn is surrounded by a zone of redness, and if typical, on the eighth day the two resemble a "pearl on a rose leaf," as Jenner described the vesicle of this time at court. On the ninth day suppuration occurs, constitutional symptoms begin to appear, with increased local redness and swelling; by the twelfth day these diminish, the areola begins to fade, the soreness decreases, and the vesicle discolors and dries up. When the wound is entirely healed the crust falls off, leaving the characteristic scar. Of course the operator has *clean hands* and takes the same precautions as in other important surgery.

Using the simple method above described, I have never had any serious "accident" and never saw an instance in which there was any evidence of other infectious disease having entered the body *with the vaccine*. I have seen a few cases in which a broken vesicle had opened the way for septic poison and bad results had followed, but none in which such results was not the direct consequence of injury. Any instance in which septicemia in any form occurred, has been, in my experience, of this character.

These facts are so because, with us, the same care and precautions have been taken *in using* as in *collecting* vaccine. Until medical men will insist upon the same rules and use them in their own practice, the present professional and popular distrust of vaccination will not only continue, but increase, as it ought to do.

It is proper that I should state the method by which I have repeatedly been able to overcome opposition to vaccination in the presence of smallpox. Argument in the ordinary sense is useless, nor does it seem to be worth while to spend breath and patience in that way. I state my personal confidence in the necessity of the operation, and prove my faith in the vaccine by offering to be the first to submit to its use. Such evidence has never failed to persuade even the most ignorant and obstinate, and has inspired a confidence which has amply repaid the slight trouble involved.

It is well not to forget that the secret of Jenner's discovery was really found in the experience of the laboring class, who most need its beneficent modification to-day.

There are many physicians and health officers who, appreciating existing difficulties, are urging compulsory legislation and a fine of parents for neglect of vaccination of children. I trust they have studied the history of such legislation and watched the effect in England where the compulsory law is openly violated to-day because of the opposition created by itself and by blundering attempts at its enforcement.

My experience has been large enough to enable me to have an opinion founded upon it, and I unhesitatingly declare for no other legislation than the power to isolate as for any other infectious disease. That is all we have in Minnesota, though the legislature has more than once been willing to go further if requested. The results of our present methods appear in our published experience of their use, in a steady reduction of smallpox prevalence from the beginning to date, though the disease has been epidemic more than once in adjoining States since it assumed the form of limited endemics, and often what may be called "family outbreaks" in Minnesota.

If we can overcome prejudice fostered by controversies as to forms of vaccine, and the notorious accidents which have followed the use of commercial calf lymph at various times, there will be no difficulty in reëstablishing infant vaccination as a habitual custom again, and making a certificate of successful vaccination a necessary prerequisite to admission to all schools, *on the demand of the people themselves*.

It is fortunate that the claims of vaccine rest upon a long experience, both popular and medical, of their usefulness in actual service. It is not a laboratory product, and not comparable with antitoxin for diphtheria, for example, as it does not involve intricate artificial processes of production or use. It is a result of common experience in the dairy and the stable, carried to positive demonstration by Jenner in common experience too. Its value has been tested as no other agent for prevention of disease ever can be.

Its value is simply this, that its proper use has stayed the progress of a great plague. That use is one hundred years old to-day. Smallpox, a *terror* one hundred years ago, is to-day, *because of vaccine*, the most easily controlled of all infectious diseases.

In a dark and secluded place near the great west doors of Gloucester cathedral stands a statue of Jenner. When I saw it in 1889 it was covered with dust and had every appearance of neglect. In the city of Gloucester, near where Jenner lived and made his discovery, and where I think he at one time practiced his profession, the anti-vaccination party have, within a few years, won what they call a victory, and deprived hundreds of children of the protection against smallpox, which, *in that city*, was peculiarly their birthright. Medical men and health officers warned the authorities that it was only a question of time when the plague would be upon them. It is there to-day, in the centennial year of the discovery of vaccine, and too late to prevent, but not too late to crush out the disease; vaccination is again in urgent demand and imperative use.

When the fight is over, the dead buried, the disabled and deformed provided for, the least that the people of Gloucester can do will be to punish those who have so grievously misled them, clean and beautify that statue of Jenner, add another grateful inscription to its base, sing a Te Deum, and publish their reconversion by terrible and needless experience to the belief that vaccination for the prevention and control of smallpox is the most clearly demonstrated fact in the history of the management of disease.

THE DISCOVERY OF VACCINATION.

Address delivered at the Centennial Celebration held at Atlanta, May, 1896.

BY JEROME COCHRAN, M.D.

MONTGOMERY, ALA.

Great is the name of Jenner. It marks an important historical epoch. Before Jenner, smallpox was king—king in the palace and in the hovel—king all the time and everywhere. In civilized Europe it claimed annually many hecatombs of human lives. After Jenner vaccination was king, and under the protection of its invulnerable armor men and women were enabled to walk in the midst of pestilence with impunity. Such and so great was this man's discovery. No wonder that his fame comes to us resound-

ing down the corridors of time. No wonder that in the catalogue of great doctors he stands out in bold relief as one of the greatest. He has, perhaps, done more for the salvation of human lives than any other man that ever lived.

But a truce to panegyrics, and now to our problems.

Smallpox is the type of specific infectious diseases. It runs a definite course, can not be cut short by treatment, and one attack, in the immense majority of cases, protects the entire system against subsequent invasion. Nevertheless, second attacks are not unknown. I have myself seen one case of a patient who recovered from a first attack of confluent smallpox and afterwards died of a second attack a few years later.

Of the physical character of the smallpox poison very little is known, and I touch upon this point very briefly, because I believe it is to be treated of specially during this discussion by a distinguished bacteriologist. But we do know something about it. We know, to begin with, that it is organic and living, because it is endowed with the faculties of growth and reproduction; and we know that it is composed of semi-solid, colloidal particles, because living functions can not be manifested by gases and liquids.

The poison of smallpox being thus animate and particulate is generated exclusively in the bodies of men and women. It is probably thrown off from all the eliminating surfaces of the smallpox patients. It can be carried from place to place and from person to person, on the point of a lancet, in bedding and clothing, by cats and dogs, and perhaps by flies. It is doubtless carried through the air for short distances; but it is important to remember that it will not ordinarily cross a street unless it is carried by some human or animal agency. If it invades the premises of your next door neighbor you can close the windows on that side of the house and sleep in peace.

How the smallpox poison finds its way into the bodies of its victims is a question of curious interest. It is usually assumed that it is taken in the act of respiration, although we know that the vibrissæ of the nose strain out nearly all the bacteria of inspired air; and that the mucous membrane of the nose is highly antiseptic. I do not know that it has even been supposed to gain entrance by way of the mouth. I should be strongly tempted to believe that it is always introduced through some abrasion by some indirect process of inoculation, but for the fact that the symptoms of inoculated smallpox differ so widely from the symptoms of smallpox contracted in the usual way. At the point of inoculation in inoculated smallpox the papule can be discovered on the third day; the vesicle at the point of inoculation is fully developed on the fifth day, and the eruption over the body is in full bloom on the eighth day. In ordinary smallpox the usual period of incubation is twelve to fourteen days. So the theory of accidental inoculation will not hold good.

The smallpox poison is very easily destroyed. It is killed at a temperature below that of boiling water. It is killed by the fumes of sulphur. It soon disappears by exposure to sunshine and fresh air. In spite of all the books say to the contrary, it shows far less disposition to spread in warm weather than in cold weather. In our long southern summers on the Gulf coast it almost dies out, even when no effort is made to prevent its spread. It affects the negroes much more severely than it does the white people.

In passing through the body of the cow the virulence of smallpox is greatly modified, so that cowpox is a very much milder disease than smallpox. Vaccinia, the product in the human subject of inoculation by the virus of cowpox, is a mild disease, and affords protection against ordinary smallpox. This is the discovery of Jenner which we celebrate to-day, and furnishes us with an easy transition from problems in smallpox to problems in vaccination.

As of the virus of smallpox so of the virus of vaccinia; we know but little of its physical and vital composition. For the same reasons as those mentioned in the discussion of the virus of smallpox we know that the active agent in the virus of vaccinia is a living colloidal, particulate organism. Ernst and Martin, of Boston, are reported to have found in vaccine lymph a micrococcus which can be separately obtained, and which when inoculated in calves and children will produce the characteristic vesical. I know nothing of the details of their research. The almost forgotten researches of Chauveau in 1865 to determine the infectious principle of vaccine lymph, are perhaps still of some value. He found vaccine lymph to be composed of a fluid part, in which were white blood corpuscles, and a number of granules many times smaller than the leucocytes. These constituents were separated by a process of diffusion and it was shown that on inoculation it was the granules and the granules alone that communicated vaccinia. Chauveau's conclusions seem to have received confirmation from similar experiments made by Ferdinand Cohn and Burdon-Sanderson. Cohn even asserted that those micrococci could be cultivated outside human and animal bodies.

Smallpox may be prevented from spreading by the intelligent interposition of isolation and disinfection. But of all the prophylactic measures which have ever been made use of against smallpox vaccination is by common consent the most important. When Jenner had succeeded in demonstrating his discovery, it was confidently predicted that the reign of smallpox would be speedily ended, and the world permanently freed from the immeasurable evils which during many centuries it had inflicted on the human family. Very vigorous efforts were employed by the medical profession to extend the practice of vaccination amongst the people generally; and in many, perhaps in most, European countries it has been made obligatory by express provision of law. The results have not been altogether in harmony with the anticipations of its advocates. It is true that the prevalence of smallpox has been greatly diminished; and it is true that the percentage of smallpox mortality to population has exhibited much lower averages since the introduction of vaccination than before; so that there can be no question that it has been the means of saving the lives of many thousands, I might perhaps safely say, of many millions of human beings. Saving so many lives I have said; I should have been more accurate if I had said, prolonged so many lives; for of course finally all of them have to die.

But notwithstanding all this, the dreadful malady which had been so confidently consigned to extermination, has still managed to maintain a tolerably vigorous existence among the nations. Now that the conditions of the problem are better understood we are obliged to conclude that the final extinction of smallpox will not be accomplished until our civilization obtains a much higher grade of development than any

which it now presents, or which it is likely to reach for some centuries to come. The reason for this conclusion is easily found. It is not that our medical ancestors were greatly mistaken in their estimate of the protective value of vaccination; but that the experience of a century has shown that under existing circumstances it is practically impossible to secure the thorough vaccination of the whole population of cities and states.

And yet the prophylactic efficacy of vaccination has been and is now to some extent over-estimated, because a great many physicians do not sufficiently appreciate that in very many cases the temporary protection afforded by vaccination is not permanent, does not last for the remainder of life; and because so many vaccinations are inadequately done. A single small vaccine vesicle will protect for a time. But several vesicles or a cluster of vesicles will protect for a much longer time.

Then there are a considerable number of our fellow-citizens, who are very earnestly opposed to vaccination. It is true that in this opposition they are most unwise, but even in their folly they are entitled to considerate treatment. Only two or three weeks ago I read in the ASSOCIATION JOURNAL that there was then prevalent in Gloucester in England a sweeping epidemic of smallpox due to the resolute refusal of vaccination by an anti-vaccination league. And this in the very county in which Jenner pursued his investigations. Compulsory vaccination laws inevitably lead to anti-vaccination leagues.

I am myself opposed to compulsory vaccination laws. I think they trench too much on the liberty of the citizen, and beget a very troublesome opposition from many who would otherwise in case of danger submit to vaccination as a matter of course. I know the argument is that these anti-vaccination cranks imperil the health of communities. Sometimes they do; but communities can protect themselves by isolation and disinfection—in a word, by quarantine against the few dangerous persons who would hold out against vaccination in emergencies; and if any of my fellow-citizens insist on running the chances of dying from smallpox I would be the last man to deprive them of that privilege.

Much has been written as to the comparative merits of humanized and bovine vaccine. It is the fashion just now to prefer the bovine virus, and I in practice follow the fashion. We do not have much smallpox in Alabama and consequently we do not need much vaccine. When we do need it it is convenient to order the bovine article, and we do so. But I am profoundly satisfied from a very large experience that the humanized virus, in the form of lymph or of crust, has equal prophylactic power, is equally safe from unfavorable complications, and is followed by a smaller percentage of bad arms. The enthusiasm for the bovine virus has been largely manufactured to order by the managers of vaccine farms. Jenner used the humanized virus, and Jenner's successors for two generations used the humanized virus. The common use of the bovine virus has grown up during the last thirty years.

The communication of syphilis along with the vaccine is the complication that has been specially dreaded. I know the famous cases related by Mr. Jonathan Hutchinson, and by Mr. Thomas Smith. I know nothing about Mr. Smith, but I do know that Mr. Hutchinson was always seeing a lot of things that were not obvious to anybody else; and I remain very incredulous about vaccinal syphilis. In Mobile in 1874, some twelve thousand vaccinations were done with the humanized lymph, and I never heard of a case of vaccinal syphilis.

The vaccine vesicle is a living thing—a growth as much as cancer or tubercle is a growth, and the presumption is that in the process of growth it converts everything which it appropriates into its own nature, and this without regard to the soil in which it grows. Just as, for illustration, the poisonous night-shade, the delicious strawberry, and the medicinal poppy, may all grow side by side, out of the same soil, and be fed with the same food, and yet each remaining true to its own special nature, will produce its own characteristic fruit.

The location of the vesicle is among the epithelial elements of the derma. The epithelial cells take part in the growth of the vesicle, and it is through their agency that it becomes many chambered. The chambers are filled with transparent lymph. It never passes through a pustular stage. In about eight days it attains its full development, after which the lymph gradually concretes into a crust which is firm and tough and translucent like horn. The color is sometimes a light amber, sometimes a deep amber, sometimes a dark mahogany, and sometimes almost an ebony black, depending always on the color of the skin on which it grew. The darker the skin the darker the crust. The color is due to the pigment cells which remain entangled in the crust when it dries.

I hope I may be excused for speaking at so much length. Gentlemen, I thank you for your kind attention.

CLINICAL MEMORANDA.

Read before the Chicago Pathological Society, April 13, 1896.

BY ARTHUR R. EDWARDS, M.D.

Professor Therapeutics Northwestern University Medical School; Attending Physician Cook County Hospital; Pathologist to Cook County, St. Luke's and Wesley Hospitals.

I. CASE OF CIRRHOSIS OF LIVER WITH PRE-ASCITIC EDEMA OF LOWER EXTREMITIES.

J. A. N., a laborer, married, 43 years old, American; under observation from Jan. 25 to Feb. 6, 1895. By occupation he was an engineer. His affection began two weeks before entrance, with an initial chill, with pains over the entire body, in every joint and in the head. He had during this period suffered from hourly vomiting, and frequent diarrhea. The bowels had been usually constipated. Hiccough had troubled him excessively. His wife stated that the patient's illness began suddenly with involuntary evacuations from the bladder and rectum, accompanied by an enormous appetite and thirst. His left arm had been limp and painful for some time past. The lower extremities, together with the other parts, have grown emaciated till some six days since, when considerable anasarca about the legs and ankles developed. He had always lived in this State. He married a year ago. His wife noticed large veins in the legs, but had never seen any upon the abdomen.

Examination: Involuntary urinary and fecal evacuations existed with retention of urine, 4,100 c.cm. of urine being withdrawn at one time. The urine contained no albumin nor sugar, was neutral, sp. gr. 1013, 2.3 per cent. urea, no pus nor casts in the sediment. Respirations varied from 18 to 20, the pulse

from 80 to 90, and the temperature from 98 to 101 in axilla. He vomited frequently. Rectal examination was negative. Upon the trunk and lower extremities appeared an eruption of erythema nodosum, upon which basis bullæ later developed. His legs and feet were much swollen. Upon both legs and over both inguinal and hypochondriac regions were observed very large, extremely tortuous veins. The eyes and discs were negative. The blood examination showed no changes in stained specimens. Sordes existed upon teeth and lips. The lymphatic system, the bones and muscles were negative. The heart was not enlarged in any direction, the first tone over the apex being weak, and the second aortic tone was considerably accentuated and transmitted into the cervical vessels. No murmurs were obtained. The radials were not hard and the pulse was 90, regular and compressible. Marked pulsation existed in the jugulum and supra- and infra-clavicular regions. The second pulmonic tone was questionably accentuated. The lungs were tympanitic laterally and anteriorly, no râles were heard in front, respiratory excursion was demonstrated on both sides, although it was hard to get the patient to breathe deeply. Over the lower lobes behind, hypostasis was diagnosed from the presence of inspiratory râles and relative dullness. The liver on percussion lay within the usual limits, except that tympany existed over the location of the entire left lobe. The spleen was indeterminable on palpation. No free fluid was found in the peritoneal cavity. Rectal examination was negative. The umbilicus presented no changes. There was no icterus. Marked delirium, slight cyanosis toward the end, emaciation, and a subnormal and even collapse temperature were noted. The genitalia were hyperemic and slightly eroded by the ammoniacal urine.

The prognosis from the first was absolutely unfavorable, and the therapy of free stimulation, alcohol and supporting measures were wholly unavailing. The case is, therefore, presented wholly for its diagnostic and pathologic phases.

Diagnosis: An arterio-sclerosis with secondary cardiac hypertrophy having been diagnosed, there was still an underlying disease which threatened life. The findings were few and the chief interest centered in the greatly dilated veins in the abdomen and legs, which obviously indicated obstruction. The argument, diagnostic and pathologic, was to my mind most interesting. Was the obstruction intra-thoracic? The venous ectasia was rather too low to favor this construction. Was then the return venous flow impeded in the vena cava or in the portal vein district? No cause could be invoked for the theory that the cava was compressed; there was no tumor, no inflammatory focus, etc., hence attention was directed to the liver. There was no real jaundice, no ascites and no splenic tumor; yet knowing that a free collateral circulation may prevent or succeed in time a hepatic cirrhosis, and that the passive congestion of cirrhosis may in exceptional instances antedate the ascites, the antemortem diagnosis of hepatic cirrhosis was made (in the presence of the late Dr. D. D. Bishop, Dr. Stout, Dr. Skinner and Dr. Hardie).

The necropsy findings were in brief: Kidneys, 10 x 6 x 3.5 cm., 10 x 6 x 3 cm., 300 gm.; surface slightly roughened; capsule freely separable; showing no marked naked-eye changes; microscopically, some slight arterial alterations and inconsiderable islets of connective tissue change were observed. The heart weighed 420 gm.; the left ventricle was 20 mm. thick and the aorta was somewhat atheromatous. Lungs: Some few adhesions in the right pleura; moderate marginal emphysema; mechanical hypostasis. Spleen: 170 gm.; very marked perisplenic changes, explaining the inconsiderable size of the organ compared with liver. Liver changes: 28 x 18 x 18; 5 x 8 x 6 cm., 2,000 gms.; surface smooth, no adhesions; porta free; the organ was universally red; the lobules were centrally fatty and in their periphery exhibited delicate strands of connective tissue. Microscopic examination revealed a typical fatty alcoholic cirrhosis without any striking anomalies. The gastro-intestinal tract was negative. The peripheral veins conformed to the clinical signs. The vena cava was not compressed, not involved in any cicatrix, not the seat of any thrombosis, etc. The subperitoneal veins, especially in the right inguinal region, were varicose even to bursting. The clinical diagnosis of a latent hepatic cirrhosis, with collateral circulation sufficient to obviate ascites and splenic tumor, was confirmed.

Labadie-Lagrave states that pre-ascitic edema of the lower extremities may appear as an initial or as an almost isolated symptom of cirrhosis. It was first described by MacSweney in 1876, then by Giovanni, by A. Gilbert and H. Presle (Thèse de Paris. 1892). While edema as a rule accompanies or follows the ascites, it may antedate the appearance of ascites by months, even 1½ years. When it accompanies the first cirrhotic symptoms, it is a sign of diagnostic importance.

It may occur not from portal vein stasis alone but from cicatrices around the cava, cachexia, heart or renal complications.

Thierfelder believes the occasionally earlier appearance of anasarca before ascites is often more apparent than real, since edema is better seen by patient and physician alike. Such edema may be due to meteorism or fluid pressing upon the cava or iliac veins. Bamberger explained edema of the lower extremities in isolated cases by the fact that the pars hepatica of the cava inferior suffered contraction by shrinking of the cirrhotic liver.

However, I am convinced that none of the enumerated causes operated in this concrete instance. The great collateral circulation opened channels of communication between the vena porta and venæ epigastricæ, by means of which the blood flows from the latter to the venæ crurales and produces an edema of the lower extremites before a great degree of ascites is present. Monneret has described an instance in which, by the mechanism suggested, the overfilled epigastric veins produced edema of the abdominal walls.

II. CASE OF ASCITES CHYLOSUS.

The following case entered the service of my friend Dr. Worthington, by whose courtesy and that of Dr. F. A. Besley, I was enabled to study the case clinically and report it. I performed the postmortem in the presence of Drs. Worthington, Besley, Olney, Wood and Richter.

The case presented no remarkable clinical features but details are in place because of the rarity of the complicating chylous ascites.[1] The patient aged 32, married, of American descent, barber by trade. Under observation two months. The family history was negative beyond the death of a sister from gastric

[1] Edwards, Ascites chylosus s. adiposus, "Medicine," August 1895.

tumor. The patient had a diarrhea for past seven or eight years which recurred several times a year, each time lasting three or four weeks, amenable to careful dieting. Three weeks before entrance, he had a severe chill with fever and suffered severe pain in the left side. He coughed and expectorated freely. No hemoptysis.

Physical Examination: Mind clear; eyes negative; tongue coated but moist; pharynx, ears, scalp, calvarium negative. Lungs: On both sides there was flatness below, reaching as high up in axilla as level of nipples; there was also absent or greatly diminished breath sounds, greatly decreased vocal fremitus, distant crepitant and subcrepitant râles; at level of flatness was bronchophony and above it were an increased percussion note, exaggerated breathing and a few râles. No respiratory excursion existed on either side. Cardiac percussion gave a triangular shaped area of dullness, with its apex directed upward, its sides, which diverged downward, passing wide of the sternal margins and fusing with the dull areas on either side. Over the basis was heard a to-and-fro murmur which was simplified into a systolic murmur at the apex. The murmur was a typical friction rub. The cardiac action was visible only in the second and third left intercostal spaces. While the pulse was full yet the heart tones were very distant. The liver dullness merged with that of the lungs, indefinable above but reaching three inches below the normal lower limit of hepatic dullness. Spleen not palpable. Great abdominal meteorism, but fluid could not be positively affirmed, although considerable effort was made to find it, since the abdomen was prominent. One week prior to death, free fluid was demonstrated in the peritoneal cavity. The pleural cavities were each tapped three times, and clear yellow serous fluid of sp. gr. 1013 was obtained. The pericardial sac was also tapped in the fourth left intercostal space, and a sero-sanguineous fluid withdrawn with a sp. gr. of 1021. The temperature curve was irregular, remittent in type, with apyretic intervals of variable duration. The pulse was uniformly high, as was also the respiration rate. The patient was treated with guaiacol, malt and cod liver oil, and later, whisky, strychnia and digitalis were added. Diuretin and potas. acetate were also employed as diuretics. The urine was negative. The clinical diagnosis was: 1. Effusive pericarditis, probably tubercular from the hemorrhagic character of the exudate and the cachectic condition of the patient. 2. Pulmonary compression from double hydrothorax (no bacilli were found clinically). 3. Liver of passive congestion. 4. Hypostatic edema and ascites. The clinical diagnosis was confirmed in every respect except regarding the interpretation given the ascitic fluid which was chylous and not purely serous.

Postmortem five days after death: Slight postmortem lividity; no rigor mortis; nourishment fair; pericardium contained three ounces of a bloody serous fluid; the two layers were covered with shaggy fibrinous flakes; both leaves of pericardium were rough and, where not rough, edematous; the exudate was one-fourth to one-half inch thick over the heart. The endocardium was wholly negative, both parietal and valvular. More careful examination of the deeper layers of the exudate revealed innumerable small tubercles, and upon the diaphragmatic surface of the pericardium was a large solitary tubercle as large as a walnut. The myocardium was pale, firm and, nearest the pericardium, edematous.

The peritoneal cavity was full of a malodorous, milky fluid which contained some few yellow flakes. The peritoneum was smooth and glistening throughout its entire parietal and visceral expanse. Stomach and intestines negative. Diaphragm reached to the sixth rib on the right side and to the eighth on the left. Appendix free from adhesions. The liver was fully a hand's breadth below the costal arch; its edge was rounded and its markings fairly distinct. In the left pleural cavity were some few firm adhesions with an eruption of miliary tubercles on the diaphragm. The right lung was free, crepitated feebly above and the lower lobe was devoid of air. Firm adhesions over left upper lobe, lung crepitates feebly, lower lobe airless. Spleen 18 x 4 x 15, soft, flabby, friable. Kidneys, dark in color; capsule peels readily; cortical markings distinct.

Anatomic diagnosis: Chylous ascites; hydrothorax and pleuritis; pericarditis effusiva tuberculosa; parenchymatous degeneration in the liver and kidneys; splenic tumor.

I have lately misplaced the record of the chemic analysis, but fat was present in traces. There was a very slight but distinct sugar reaction, while albumin was present. Microscopically, the fluid was teeming with bacteria on account of the late date of the autopsy and leucocytes bearing granules were sparsely scattered through the sediment, together with amorphous granular masses. The case must then be included in the class of chylous ascites, the number of which is very small, since scarcely a dozen cases are recorded in which sugar was found. Cases of chylous ascites are indisputable when 1, macroscopic rupture of the chylous tracts, 2, microscopic rupture of the same are demonstrated, and 3, when sugar is found. In the genuine chylous ascites, rupture may occur anywhere in the chyle system. The return chylous flow may obstruct anywhere from the smallest to the largest vessels.

However, in the case reported no such rupture nor obstruction could be demonstrated, if we except the obvious impediment to the chyle and vascular flow, the pericarditis and the myocardial inadequacy. The presence of sugar, when diabetes is excluded, is proof positive of chylous ascites.

Our explanation of the chylous effusion is the following: The cardiac power was reduced by the infiltration of the myocardium, per contiguitatem, from the inflamed pericardium. As evidence, we note the edematous subpericardial portion of the heart's musculature. A second cause of reduction in the heart's efficiency resides in the compression of the viscus by the pericardial exudate, which explains the pallor of the myocardium on section. The cardiac obstruction was reflected peripherally into the venous system, hence the synchronous cessation of the normal centripetal chyle flow. Serious stasis in the distal chyle vessels resulted with final attenuation and rupture of their walls.

It is highly probable that the ascites was primarily serous and became only later chylous. There are some seven instances of this transition on record. The nature of the fluid was in this, as in other instances, a postmortem surprise, but never has chylous ascites been diagnosed before death or paracentesis, since there are no infallible, nor indeed even highly suggestive, diagnostic signs. Its proper recognition

would have necessitated a prognosis even graver than that of a tubercular pericarditis, but it could in no wise have had any therapeutic value.

103 State Street.

DISCUSSION.

DR. HERRICK—I should like to ask Dr. Edwards if there is not but one other case or at least very few cases in which cardiac obstruction has produced chylous ascites?

DR. EDWARDS—I think there are more than that. Dr. Busey, of Washington, wrote an article on the subject in which he thought there were a number of cases where, for instance, a tricuspid lesion or a secondary endocardial lesion, or even a lung obstruction which would affect the right heart caused chylous ascites; but they are relatively few, and I think there were only three authors, Niemeyer, Busey and one other who called attention to that point.

DR. BURGESS—I will confine myself to the description of a case of cirrhosis of the liver which I have recently seen, which also had unusual vascular disturbances of the liver itself. I never saw the patient during life, but I understand that the first that was known of him was that he had some attack of heart trouble and an examination revealed that he had a myocardial lesion and also had a systolic venous pulse; at this time there was some anasarca, and the liver dullness in the vertical direction was much increased, about six inches, and on depressing the abdominal wall the liver could be taken in the hand and pulsation felt. Care was taken to exclude all communicated pulsation, and the diagnosis was that there was a pulsation in the liver itself, in the substance of the liver. The case went on and finally a great deal of ascites developed, and that is about all I remember of the clinical history. At the autopsy the liver was found in an advanced state of cirrhosis. It was smaller than normal; the well-known ax-shaped liver was present. The condition of the heart was, that there was a competent pulmonary and aortic valve, with incompetency of the tricuspid and mitral valves; the ascending vena cava was very much widened; the veins which empty from the liver were very much widened and in passing a stream of water from the tap into the liver it could be seen distinctly to swell out, and then on squeezing out the water, which was not a great amount, and repeating the process the same thing happened over again; so in this case the pulsation of the liver was marked enough to be well felt, and of course was due to the pulse of the right ventricle going through the tricuspid, which was incompetent.

ANTITOXIN IN THE TREATMENT OF DIPHTHERIA.

WITH REPORT OF FATAL TERMINATION OF CASE AFTER RECEIVING PROPHYLACTIC DOSE.

Read before the Ohio Medical Society at the Fifty-first Annual Convention, May 28, 1896.

BY S. S. HALDERMAN, M.D.

PORTSMOUTH, OHIO.

A death occurring in about four minutes after injecting under the right scapula, in a boy five years old, a prophylactic dose of Behring's antitoxin, No. 0, furnished the excuse for this paper.

I have had an experience of eight months in the treatment of diphtheria with Behring's remedy, embracing the administration of the remedy to seventy cases of the disease, several of them bacteriologically examined, and all presenting the usual well-marked signs and symptoms of the disease, and occurring during an epidemic of a severe type of the disease, characterized by a high rate of mortality where antitoxin was not employed in the treatment, without losing a case so treated. After having used it for prophylactic purposes in twenty-seven cases that had been directly exposed, and in many of these the exposure was continued, with the desired result in preventing the disease in all but three cases, these three cases manifesting evidence of the disease within less than seventy hours, showing that it was already in their systems and incubating, I felt justified in the use of the preventive remedy in this case. Seven children were in the family, the oldest less than 11 years, the two youngest five months old; they had commingled freely with the affected children, and that those not affected, five in number, would have diphtheria seemed to all concerned very evident.

After having treated the two oldest children, aged respectively 8 and 10 years, to the satisfaction of the parents, who had previous unpleasant experience in the deaths of two relatives, children, both occurring in one day, I did not feel justified in withstanding their importunities to use the remedy to prevent, if possible, the dread disease in the other children.

I had given the prophylactic dose, Behring's No. 0, to Seva, aged 2½ years. Willie, aged 5 years, was awakened from a sound sleep, and the dose, No. 0, operation No. 161, was injected just below the right scapula in the tissues underlying the skin; he made but slight outcry, lay down and was noticed to try to scratch the seat of the injection. I walked across the room to a table and washed my syringe, which consisted of an ordinary barrel and piston made for the purpose, and capable of holding about 30 c.cm. After having washed it in hot water I took the cork from another bottle, No. 0, which, as you are all doubtless aware, consists in quantity of about 2 c.cm. of the serum, took this up into the syringe, and proceeded to administer it to George, aged 6 years. While I was making this injection the mother's attention was attracted to Willie by some struggle on his part, and she immediately called to me that something was wrong. I looked and observed a striking cyanotic appearance of skin of face, puffing, swollen appearance of lips; with the finger I could detect no radial pulse; ear to region of heart revealed the absence of the faintest sound from that organ. A resort was immediately had to artificial respiration, while the parents were directed to procure a syringe and inject some whisky per rectum. Twenty-five minutes' effort at restoration was of no avail. It is my opinion the heart never pulsated after somewhat less than four minutes from the time he got the injection.

As to the cause of the fatal result, it is not clear to my mind. The suggestion of a fellow practitioner seems reasonable, and I can do no better than give his words. "It was one of those peculiar idiosyncrasies that sometimes we meet with, obnoxious to agencies and influences that do not affect the general class, and that we can not gaurd against because of their infrequency and negative indication." We meet with such now and then when exhibiting anesthetics and other agents, and even in the cases of the disagreements of some kinds of food (not ptomains) which seem to act as poisons, such as oysters and shellfish of any kind, likewise eggs and milk. You have all met with these peculiarities.

The wide adoption of antitoxin as a remedy in diphtheria enables one to draw some useful conclusions as to its value. Yet I speak with some caution and reserve with my limited experience of the remedy, and the results in my own practice have led me to wonder if it were really the treatment with antitoxin or the non-employment of remedies, such as chlorate of potassium, internally, and local irritants to the diseased parts, that had something to do with the uniform and rapid recovery of my cases. Drs. Hare, Smith and others have advised against the internal administration of chlorate of potassium in the disease, because of its possible damaging effects

on the kidneys; yet it is not an uncommon thing to see prescriptions containing a saturated solution with an excess of the salt; the patient directed to take a teaspoonful of this mixture every one, two or three hours. The question very naturally arises, how many cases of fatal kidney disease might not have occurred had chlorate of potassium not been employed. I have not given a grain of the salt in diphtheria for many years, and since the adoption of antitoxin have given but few drugs. Usually in conjunction with the injection of antitoxin I would give calomel pretty freely for its cathartic effect, advise the free administration of beef tea, sterilized milk, coffee, and if the patient desired any carefully prepared food, and give a prescription combining a few drops of tr. ferri chlorid. in glycerin and syrup, to be given hourly, more to occupy the mind of the nurse than for any other purpose. If there was great restlessness, small doses of chloral and morphia to procure the desired sleep, as you are aware nearly all cases of diphtheria are attended with considerable restlessness. After exfoliation of membrane and subsidence of fever, I would give small doses of quinia and strychnia: quinia sulph. gr. xv; liq. strychnia acetat. (Hall's) ʒi; yerbazin (Lilly) ʒiii. M. Sig.: Half teaspoonful every four hours to child one year old, and order its continuance for not less than three or four weeks. Of the various local applications administered I think most of that of Loeffler, and in young children I have diluted the solution with alcohol and water, and directed that the mouth be swabbed out occasionally with this preparation. In the case of older children and adults, would advise the use of the solution in full strength. The preparation consists of menthol, 2½ drams dissolved in 9 drams of toluol, 1 dram liq. ferri chlorid., and alcohol, 2 ounces.

Of the seventy cases of diphtheria treated by the writer, abscess did not occur in any, of cutaneous manifestations one, a slight urticaria occurring fourteen days after injecting a girl, aged 8 years, with Behring's antitoxin No. 2. This patient had also some slight manifestation of articular trouble in left hip, but the mother, a very intelligent lady, said the child had previous to her illness from diphtheria frequently complained of joint pains, and she thought her rheumatic. Diphtheritic paralysis was noted in one case, was of short duration; in this child there was irregular heart action occurring at the same time of paralysis, about twelve days after receiving the antitoxin. Albuminuria was noted in five cases; one of these was a case of diphtheria supervening upon measles; a boy five years old had a severe case of measles, and on the eighth day of that disease was attacked with croup, which was proven diphtheritic bacteriologically.

There was abundant evidence that the formation of the false membrane was checked; that its exfoliation was hastened, that the throat was free from membrane earlier than in cases not treated with antitoxin. It was clearly apparent from all the manifestations that the toxemia was relieved and lessened. The health officer's record shows that cases treated with antitoxin were discharged convalescent in average of less than seven days while those treated with other methods had an average of ten days. Of five cases having the appearance of being mild, treated by the writer without antitoxin, two died. Of the three recoveries, one was unable to walk from September 20 to November 11, another was feeble for some weeks in spite of careful nursing and continued administration of tonic remedies. One of these cases was so mild in appearance that the mother protested against the use of antitoxin, said she would not believe the child was sick if she did not see the swollen glands and exudation in throat. This child died ten days after the invasion of the disease from laryngeal stenosis, expired within half hour after symptoms of croup.

Experience and statistics all show the importance of early treatment by serum, mortality increasing with the days of the disease before treatment. Under the influence of early serum treatment the disease loses its progressive charater and this is true in regard to laryngo-stenosis. Of the seventy cases there was but one instance in which laryngo-stenosis symptoms developed. In many cases of very active glandular inflammation with abundant formation of membrane, the effects of the treatment were very striking. Within thirty-six hours in some of the most severe cases there was marked improvement in the general condition, improvement of pulse, fall of temperature and considerable, if not complete, exfoliation of membrane.

The limitation of time makes it impossible to discuss the position of antitoxin treatment of diphtheria fully, and I will not consume the time of this Convention with statistics, but will conclude by saying that in my opinion all patients are benefited by the treatment when administered in time to accomplish any results with a reasonable hope of recovery. The administration of antitoxin does away with the necessity for any other but the use of local disinfectants to prevent or limit the growth of bacteria in the throat and supporting treatment.

DISEASES OF THE LACHRYMAL GLANDS.

Read before the Nebraska State Medical Society at Lincoln, May, 1896.

BY H. S. BELL, M.D.
KEARNEY, NEB.

Diseases of the lachrymal passages are frequently brought to the attention of the general practitioner, and I am inclined to believe that our substantial knowledge of the causation, course and treatment of these diseases is not as full and practical as it should be.

The reason for this scant information can not be explained by the relative infrequency of this class of cases, but mostly from the comparatively little attention writers and teachers have heretofore given this subject. Believing this, I have thought I could best serve this society by a discussion of this very common, but too much neglected class of diseases.

The diseases which most frequently affect the lachrymal passages, are those involving the ducts leading from the eye. Near the inner canthus of each eye there may be found two small openings, one in the upper and one in the lower lid, called puncta. These are the orifices of the canaliculi, two very small canals leading into the lachrymal sac, which is the upper dilated end of the nasal duct. In this expanded pouch, or lachrymal sac, is the most common seat of disease, and from this vulnerable point the trouble is liable to involve either the nasal duct or the canaliculi or both.

The nature of the diseases affecting these passages is mucous and purulent inflammation. The most common form is a catarrhal inflammation of the lachrymal sac and its ducts, the most prominent symptom of which is an overflow of tears, and it is for the relief of this symptom the patient first seeks advice.

The tears accumulate in the lachrymal sac and distend it in such a manner that it stands out from the side of the nose as a distinct prominence, and for the relief of this fullness the patient is obliged to empty it several times a day by pressing it with the finger in an upward and inward direction. This pressure will often cause the watery secretion to be discharged in a continuous stream as if from a hypodermic needle. If the conditions upon which this catarrhal form of the disease depend are not relieved, it will finally result in what is termed "blennorrhea" or mucocele, which is characterized by a mucous or gelatinous discharge, which the patient presses out with the finger. Dacryocystitis is an acute purulent inflammation of the lachrymal sac, and the skin and cellular tissue just below the inner canthus of the eye becomes swollen, red and tender to pressure; in fact, the symptoms of a localized cellulitis with abscess. This acute form of the disease is not so common as the catarrhal variety, and requires prompt treatment to prevent a fistulous opening in the lachrymal sac. It is refreshing to find such a unanimity of opinion as to the causation of these lachrymo-nasal affections. It is fully agreed that they have their starting place in subacute or chronic coryza. In fact, chronic rhinitis is said to be not only the cause of all the affections of the lachrymal ducts, but to be the prolific source of most all the inflammations of the ocular and palpebral conjunctiva. Dr. Ziegler, of Philadelphia, in the New York *Medical Journal* of Nov. 3, 1894, says: "I think we may safely say that fully 90 per cent. of corneal lesions take their origin directly from preëxistent pathologic processes affecting the intranasal tissues and secretions."

Dr. Woodruff, of Auburn, N. Y., in the *Medical Record* of April 25, 1896, in a résumé of a recent work by Dr. Finck, of Hamburg, Germany, says: "Not a few affections of children can be traced back to a chronic coryza." "Zieme even asserts that two-thirds of all eye diseases are due to nasal affections." "Von Hasner found that among fifty-nine cases of diseases of the lachrymal duct, fifty-one showed a pathologic condition of the nasal cavities." J. Michel and Seifert observed among thirty-eight cases of dacryoblennorrhea, thirty-seven with affections of the nose. Farravelli and Kruch found among cases of diseases of the lachrymal sac, thirty showing nasal catarrh. The consensus of opinion is overwhelming that lachrymal and ophthalmic diseases have their origin in the catarrhal inflammations of the nasal turbinals. From what has been said of the causation of diseases of lachrymal apparatus, it would seem the treatment would be exceedingly simplified, and should be directed to the existing coryza. This is the logical conclusion and the natural key to the successful and intelligent treatment of this class of affections. Expediency, however, will sometimes control in the decision upon a given line of attack. Little children, in whom these diseases mostly abound, are naturally timid and impulsively shrink from the attentions of those with whom they are unfamiliar. They will not even permit their parents to use the simple means of treating these nasal inflammations. After having fully posted myself on the etiology and pathology of these lachrymo-nasal diseases, and lamenting the difficulties with which I was handicapped in conducting their logical treatment, I read a paper by Dr. P. Richard Taylor, Louisville, Ky., in the issue of Jan. 4, 1896, of the JOURNAL, where he advocated the use of a tube which he designed for the treatment of these lachrymal duct diseases. I had previously read in the *Medical Record* of June 1, 1895, of "A Simple and Effective Method of Keeping the Obstructed Lachrymal Duct Open," and which was said to be a "trick" worth knowing. This method by Dr. Walter N. Vilas, of El Paso, Texas, consisted in passing a small-sized probe armed with a canula through the nasal duct, then the probe is withdrawn and through the canula is passed a silkworm gut suture, the lower end of which is brought out through the nose and a split shot is clamped upon it. The canula is now withdrawn, and the silkworm gut ligature is drawn up until its further progress is arrested by the shot within the nose, when another shot of lead or aluminum is clamped upon the strand of gut as it emerges from the inner canthus of the eye. It was said in the article referred to that this method had been tried in a number of cases of lachrymal obstruction and abscess of the lachrymal sac with unfailing success and commends itself for its simplicity, practicability and radical effectiveness, as well as the important consideration of abridging the treatment of these cases to one sitting.

Dr. Taylor's "tube is seven-eighths of an inch long and three-eigh ths inch angle, and can be made of any size and of any metal. It has a lateral slit on both sides of the short end, leaving a duckbill snout with upper and lower blades, both of which are to be beneath the surface of the lids or entirely in the passage and hidden from view. The slit prevents the soft tissues from closing the opening of the tube or hindering the passage of the tears through the tube." Each of these methods is designed to effect a cure by drainage. I had about made up my mind to try the plan, but in the meantime the method of Dr. Taylor engaged my attention and appealed to my judgment as being the best. Having three patients with obstruction of the nasal duct with the prominent symptom of weeping eye, I ordered three of Dr. Taylor's tubes. Two of my patients were children under 5 years of age. One of these, a little girl, had had frequent attacks of dacryocystitis, which had resulted in openings from the lachrymal sac through the skin just below the inner canthus. From these fistulous tracts pus and tears were constantly escaping, producing an ugly eczematous eruption over that portion of the cheek. This child was given chloroform, the lower puncta entered by a Weber probe-pointed canaliculus knife, the canal was slit into the lachrymal sac, when, with Bowman's set of probes, the nasal duct was rapidly dilated and this tube, which was introduced in January last, was inserted. I removed it a few days ago for the purpose of exhibiting it to this society to-day. I shall, upon my return home, reintroduce it. The fistulous openings have closed, the eczema disappeared and nothing remains but a faint cicatricial scar. The conjunctivitis with its purulent exudation has also disappeared.

The second case was a child presenting only the catarrhal form of the lachrymal sac with obstruction to the passage of tears through the nasal duct. This child also had chronic conjunctivitis. Prout, of Brooklyn, has described this condition as conjunctivitis lachrymalis, and adds that it can not be cured except by relieving the obstruction to the nasal duct. This child was anesthetized, the lower canaliculus slit into the lachrymal sac, and with the same probe-pointed knife the nasal duct invaded and the stricture cut, after which Bowman's probes were rapidly intro-

duced and a medium-sized tube inserted. After some weeks I decided that the angle of the tube was too long, as it rubbed the eyeball and increased the conjunctivitis. The child was again given an anesthetic, the tube removed and about one-half the short arm of the tube was cut off, and again introduced. This was two months ago. The eye symptoms rapidly disappeared, as well as the overflow of tears.

My third case was a young man 23 years old with mucocele of the sac of twelve years' standing. In February of this year, with local cocain anesthesia, I did the same operation with the best result.

EMPYEMA OF ANTRUM SIMULATING CARIES OF TEETH; AND A SIMPLE METHOD OF TRANSILLUMINATION.

BY HENRY G. OHLS, M.D.
CHICAGO.

About one year ago I had occasion to examine an antrum, in a case where severe pains in the distribution of the right facial nerve, with tenderness over the malar prominence indicated the probability of empyema. The classical symptom of pus escaping from the hiatus semilunaris and visible on the outer surface and lower edge of the middle turbinated was lacking. A competent dentist had diagnosed an inflammation of the dental nerves of the first and second right upper molars and had made several applications through the root canals to destroy the nerves. Failing at last to relieve the pain in that way, the first molar was extracted and after a few days more of treatment and terrific pain, the second molar also was extracted with a large root abscess. Passing a strong curved probe into the antrum through the socket of the tooth, gave vent to about two drachms of thick pus and was soon followed by relief from pain that had been agonizing most of the time for three weeks.

On the evening before the last extraction, I suspected the presence of pus in the antrum on account of the great swelling of the middle and lower tubinated, which might be sufficient to prevent any pus escaping into the middle meatus. I thereupon attempted to transilluminate with Ingals' incandescent lamp, but found that the battery was too far exhausted to give the necessary current. Sufficient current remained, however, to heat the ordinary cautery electrodes and I used a coil of platinum wire, guarding it by a test-tube with a cork cut in two and the halves hollowed out to receive the wires of the electrode. Since then I have used the electrode guarded by a plain two-dram homeopathic vial with entire satisfaction. The vial can be held by the neck between the patient's lips so that the cork prevents any light escaping to confuse the operator. The only mishap I have experienced in a number of trials is the minor one of melting my coil, which can easily be avoided by interrupting the current every few seconds just before the melting point is reached. If the electrode is made of tubing with a coil of platinum wire that slips into the end of the tubes, the coil can be very readily replaced at the expense of a few cents. The current should be slightly greater than that used for cauterization, but can readily be obtained from any cautery battery by cutting out a little more resistance. By covering the vial with opaque paper except at the end and applying the end to the orbital surface of the frontal ridge some illumination of the normal frontal sinus can be obtained in subjects with prominent ridges. I think some assistance in the diagnosis of frontal empyema may be expected from this proceddure, though I have not obtained very satisfactory results. As to the danger of breaking the vial in the mouth, I must confess to feeling some timidity at first, but a large number of trials dispelled this fear. A metal guard would certainly prevent any danger of that kind. Possibly a reflector might be placed beneath the electrode to increase the light, but I have found no case in which the electrode did not furnish ample light. A striking example of the danger in depending on the regular transillumination lamps was read by Jonathan Wright, M.D., before the Laryngologic Section of the Academy of Medicine and reported in the *Brooklyn Medical Journal* of July, 1895. That case presented the classical history and symptoms of empyema of the antrum. Dr. Wright said: "Unfortunately, my transillumination lamp was out

of order, so that I could not apply that test." Upon extracting a diseased tooth and drilling through the floor of antrum no pus was found. "The only conjecture that I could then make was that there was pus in the frontal sinus, but he declined with emphasis the suggestion that he have his frontal sinus opened by external incision. I did not see the patient again, but since then I have not made a diagnosis of antrum trouble without using the transillumination lamp."

Although I have not read of this method being used before I shall be surprised if such a simple procedure has escaped the myriad workers with all the essentials actually in their hands daily. Any suggestion which will give increased usefulness to instruments already in common use for other purposes should be appreciated by physicians, who are so often solicited to buy expensive instruments associated with the names of our inventive confrères, to their advertisement and the financial profit of the instrument maker.

34 Washington Street.

SUBCUTANEOUS INJECTIONS OF SUBLIMATE AS A CURE FOR CEREBRO-SPINAL MENINGITIS.

BY J. D. SMITH, M.D.
PADUCAH, KY.

In the JOURNAL of Feb. 15, 1896, page 345, quoting from *Sem. Méd.*, Jan. 15, 1896, I find that, "An Italian, Dr. Dazio, suggested the above-named treatment, and with it, Dr. Consalvi, of Casoli, has recently treated successfully nine cases."

I desire to say that I inaugurated a similar treatment at Dyersburg, Tenn., in the spring of 1885.

Having seen as consulting physician, a Mr. McC., of Fowlk's Station, four miles from Dyersburg, in the midst of vigorous manhood, die in great agony with cerebro-spinal meningitis, and two days later a youth of 14 years named Martin, in the town of Dyersburg, sicken and in twenty-four hours die as quietly as one going to sleep; and having practiced through two former epidemics of the disease with little or no

success, I determined on an original heroic course of my own in the event of an epidemic. I had not long to wait. Called next day to see Mrs. H., niece of United States Senator H. from Tennessee, and found her with her head drawn back and in a state of wild delirium. Injected just below the scapula ¼ gr. of sublimate and put her on 1-15 gr., with 2 gr. chlorate potass. every hour until the specific effects began to be manifested in alimentary canal. Then I gave same dose at longer intervals. This and some bromid constituted the entire treatment and recovery was perfect.

W. G. B., lawyer, returned from ten miles in the country, where his father had died with the disease, and had a severe attack. He was treated in the same way and had a good recovery.

Lucien S., Deputy United States Marshal, had a severe attack; was treated in same way and made a good recovery.

Thomas T., farmer, six miles in country, took pain in right foot while plowing; pain went to head and he was delirious in two hours; was seen by another physician and given calomel, sulphate magnesia and morphia. He grew constantly worse and when I saw him at the end of eighteen hours from beginning of attack was a raving maniac, with head drawn back almost between the shoulders. Injected sublimate, ¼ gr., and repeated in six hours with effect of greatly quieting delirium. He had other small injections and took minute doses by the mouth. This patient remained unconscious fifteen days, but finally recovered with right side partially paralyzed, and after having several abscesses, one of which involved the right testicle.

These were six typical cases of that epidemic, the attacks of the two that died being no more severe than were those of the four who recovered. Together with others they have been reported to the Southwestern Kentucky Medical Association.

In the winter and spring of 1893, while a severe and widespread epidemic was prevailing in one of the Kentucky counties near Paducah, I treated Mrs. P. and her 10-year-old daughter of Paducah successfully in the same way.

Another typical case that I treated successfully in Paducah at the same time was A. B. A., a young telegraph operator. His case was a severe one which resulted in partial paralysis of the left side, from which he has never fully recovered. Yet he was snatched, as it were, from the very jaws of death by the repeated hypodermic injections of the bichlorid.

A few other cases might be named, but the above are sufficient. Since the adoption of this treatment I have never lost a case of cerebro-spinal meningitis. Before its adoption I lost all. Strange to say, physicians with whom I have conversed about it seem to fear its boldness, and yet they have generally lost all their cases. I try to get the specific effects of the sublimate on the alimentary canal within thirty-six hours and then lighten up my treatment, so as to avoid excessive irritation of the canal. I do this that I may know that my patient has all the sublimate in him that his canal will bear with safety. I sometimes give castor oil and turpentine to clear the canal, bromids to quiet brain action and even give small hypodermics of morphia with the bromid, or bromid and chloral after I get the specific effects of the sublimate. I believe the sublimate destroys the bacteria peculiar to the disease, just as quinia destroys malaria, and leaves organs already injured by the bacteria in a state of simple inflammation of more or less severity.

SOCIETY PROCEEDINGS

Medical Society of the State of Pennsylvania.

Forty-sixth annual Session of the Medical Society of the State of Pennsylvania, held at Harrisburg, May 19 to 21, 1896.

DR. W. S. FOSTER, of Pittsburg, President. Addresses of welcome were made by Gov. D. H. Hastings and others. The reports of the Secretary showed an increase in membership in many county societies and the addition of four new ones. The reports of the Treasurer and of the Committee on Publication announced an issue of nearly three thousand copies of the Transactions and a balance in the treasury of $2,500. The Committee on Scientific Business had prepared a program with seventy papers for the meeting. The Committee on Pharmacy urge the need of a closer adherence to the Pharmacopeia and the National Formulary in preference to the prescribing of proprietary preparations. A copy of this report was ordered to be sent to the Pennsylvania Pharmaceutical Association for its next annual session. The report of the Committee on Increase of Membership told of the success of the efforts in that direction, and arrangement for lectures before the county societies to stimulate the attendance at their meetings. The Allegheny County Medical Society invited the State Society to hold its next annual session at Pittsburg. Several amendments to the Constitution of value in order to make the society more effective in its work were offered and laid over for a year.

DR. G. M. BRUMBAUGH, of Washington, D. C., a guest of the society, asked the consideration of certain action now before Congress affecting the work of the Government laboratory at Washington, and a committee was appointed to prepare resolutions on the subject. On motion of Dr. F. LeMoyne, Pittsburg, the following was adopted:

WHEREAS, Contagious and infectious diseases cause a large proportion of the suffering, disability and death of the human race, and

WHEREAS, Such diseases are to a great extent preventable by proper precautions, and

WHEREAS, Tuberculosis, both bovine and human, is known to be contagious,

Resolved, That the Legislature of Pennsylvania is urgently recommended to enact laws by which all centers of population containing 25,000 inhabitants or more be required to provide isolation hospitals with separate wards or buildings for smallpox, diphtheria, scarlatina and erysipelas, and provision should be made for extending the facilities in such hospitals to the surrounding populations geographically and commercially dependant upon them.

Resolved, That laws should be enacted requiring that all cows producing milk should be tested by the most approved methods for tuberculosis at least once in six months, and that all cows found to be tuberculous shall be condemned.

Resolved, That provision should be made for the positive diagnosis of all cases of suspected pulmonary tuberculosis, and that boards of health should be required to enforce adequate precautions against its dissemination.

Resolved, That in consideration of the pernicious character of the water delivered to a large proportion of the people of this country that legislation for the protection of streams from pollution is urgently demanded.

At the afternoon session DR. C. M. FRANKLIN, Lancaster, delivered the address on "Mental Disorders." It gave a résumé of the improved methods of the care and treatment of the insane, with the causes that have brought about these conditions; the advances and experiments made in pathology and their hopeful tendency; the influence of inebriety, immigration and crime in relation to insanity, with the suggestion that there may be some new legislation giving power to in some way control the extent and increase of the first two and that sociology will teach us to adopt a new condition of things by which the methods of modern life will relieve the undue tension that is at present placed upon the mental faculties.

DR. BUCHANAN, of the special committee on the act before Congress, reported:

WHEREAS, Senate Bill No. 1,552, entitled "A bill for the further prevention of cruelty to animals in the District of Columbia" is pending in the Congress of the United States; and

WHEREAS, We, the Medical Society of the State of Pennsylvania, are fully convinced that this restrictive legislation, should it become a law, would seriously cripple the efforts of the earnest scientific investigators of the District of Columbia (and indirectly of the United States) and would retard the progress of medical science in its beneficent efforts to alleviate suffering and diminish the ravages of disease; and

WHEREAS, Cruelty to animals is not practiced in the District of Columbia by those scientists who unselfishly and with great personal risk strive to increase our knowledge of disease and of the methods of its prevention and cure; therefore, be it

Resolved, That the Medical Society of the State of Pennsylvania hereby urge the Pennsylvania delegation in the Congress of the United States to use all honorable means to defeat the said bill or any similar restrictive measure.

Resolved, That copies of these resolutions, attested by the Secretary of the Medical Society of the State of Pennsylvania, and signed by the President, be sent to each member of the Pennsylvania delegation in Congress, and to the Chairman of the Committees on the District of Columbia, of the Senate of the United States and of the House of Representatives.

The preambles and resolutions were unanimously adopted. Copies were at once forwarded as directed and several replies were received from members of Congress favorable to the action asked.

DR. E. B. BORLAND, of Pittsburg, read a paper on the "Prevention of Tuberculosis." His conclusions were the three essential factors of infection, debility, abrasions and bacilli. There are two principal routes of infection, two sources of infection. He then spoke of the transmission of infection, of the vitality of the tubercle bacilli, of measures to prevent infection in milk and in sputum, ways and means to stop expectorating on floors and sidewalks, of destroying sputum in cuspidores, of ventilation, legislation, education, house disinfection, isolation and care of patients in the ulcerative stage.

DR. J. C. LANGE, of Pittsburg, read a paper on "The Antiseptic Factor of the Treatment of Typhoid Fever." He proposed external antisepsis of the whole body, of the orifices of the body and of the intestinal canal.

DR. H. S. MCCONNELL, of Brighton, read a paper on "Elimination, Starvation and Antiseptics in Typhoid." The accepted pathology shows that this disease is due to a microörganism. He denied that typhoid fever is a self-limited disease. Its duration and gravity depend upon our ability to prevent and destroy the bacilli and restrict and eliminate the toxin. Eberth's bacillus being the cause, the point of attack the alimentary canal, three indications are to be met: 1, to prevent the introduction of any bacilli; 2, to destroy and expel all bacilli in the digestive tract; 3, to make and keep the intestinal canal aseptic. The first is done by permitting only sterilized substances; the second by active purgation; the third by intestinal antiseptics, prohibiting all and every kind of food for three days. After this, when there is unmistakable hunger, give food well diluted, at long intervals and in small quantities; half a teacupful of hot water every hour, and an enema of salt and cold water morning and evening. Keep temperature below 102, cold sponging, over this guiacol externally. He had thirty-four cases, with one death; duration eighteen and three-tenths days. There were four relapses, one hemorrhage. One went seventeen days without food, another fifteen days, and thirty-two from seven to twelve days. He claimed this to be the rational treatment. It shortens the disease, temperature soon falling to normal line. There is very slight delirium, no illusions, less liability to hemorrhage or perforation. The patient is comfortable and in convalescence we have a stomach that is capable of digesting food.

DR. T. P. SIMPSON, of Beaver, read a paper on "The Use of Alcoholic Stimulants in Typhoid." The gist of this paper was a protest against the apparently increasing practice of giving alcohol freely and carelessly, with an attempt to show why this may be harmful and defeat the object sought to be reached, ending with a description of the cases which require alcohol and an estimate of the amount usually needed. These were discussed quite freely by a number of the members.

DR. J. M. BATTEN, of Pittsburg, read a paper on "The Therapy of Veratrum Viride." He gave a brief history of the drug. He dwelt upon its usefulness in the treatment of diseases of an inflammatory type by keeping the pulse at or near the normal, and especially of inflammatory diseases of the chest. He next gave a brief history of two cases of acute pneumonia in which the drug was used satisfactorily.

Some discussion next ensued upon the proposition to issue the transactions in a quarterly journal, and the subject was laid upon the table. A report of the Committee on the Rush Monument Fund showed very little progress in the matter.

SECOND DAY—MAY 20.

The Secretary read a telegram from the Secretary of the State Medical Society of Illinois:

"The Illinois State Medical Society sends cordial greeting.
"JOHN B. HAMILTON, Secretary."

The following reply was directed to be sent:

"Greetings cordially reciprocated. Have passed emphatic resolutions against the proposed vivisection legislation at Washington: hope you will do the same.
"W. B. ATKINSON, Secretary."

The Nominating Committee was announced and directed to meet at once.

DR. J. J. BUCHANAN, of Pittsburg, delivered the

ADDRESS IN SURGERY.

He asked the consideration of a few of the common things in surgery, most important because so common. Perhaps the most important is appendicitis. The divergence of opinion as to treatment increases the responsibility of the attendant. The expectant treatment is fraught with anxiety. Drugs have no place here. Opium only covers up the symptoms. Purgatives may do worse. With rest, diet, nursing and abstinence from drugging, many do recover. Who is to assure safety? Perforation may convert the case into a hopeless one. It seems the course of greatest safety is to remove the appendix early. Consent early is difficult to obtain, especially if a mild case. Still if the period of primary operation has passed, and an exudate has formed with an abscess of considerable size at its center, the operation becomes a matter for grave consideration. The gravity now depends on the position of the adhesions. If the appendix can be reached without opening the peritoneal cavity it is safe. If the cavity has to be reached and drained across this serous sac, the operation is hazardous, and often fatal. Many have no hesitation in dealing with such abscesses across the peritoneal cavity, protecting it with gauze packing. However skillful, the fact remains such are often followed by septic peritonitis and death. With the present technique, it is more prudent to attack these abscesses at a point where adhesions have probably occurred. Whether the appendix should always be sought and removed after evacuation of the abscess has caused much discussion; but the conclusion of most is that if easily accessible, it should be removed, but if imbedded in the abscess wall and the removal would imperil the integrity of the latter and risk opening of the healthy peritoneum, it must be left alone. The most positive advance of the year seems to be in the tendency to operate on cases of recurrent and chronic appendicitis between attacks. He insisted that two periods are when the removal is safe, in the very beginning and in the interval between attacks, and all cases seen at either period should at once be operated on, if the diagnosis is clear and consent is obtained. In fractures, the essential factor in repair is callus. The indication is to secure a moderate amount of this; the most favorable condition for its formation is a full blood supply and keeping the parts in approximation and quietude without absolute immobility. A revival is seen in the plan of open incision and fixation in simple fracture. Since antisepsis has been brought in, attempts have been made to bring this into general use, but the results without this have been so good as to prevent its general use. But when reduction can not be satisfactorily made and the site of fracture is accessible such are treated with great success, the apposition can be perfect and fixation by pegs or suture secured. The result justifies the risk and deformity may be prevented. Two errors are to be avoided. Not to apply this on such as can be treated without, and not to remove detached fragments of bone which are valuable for consolidation. In these cases the process of repair is a little more protracted; still it is certain that it is destined to have a wider application and with proper limitations will be very valuable. The most frequent changes advocated in fractures is that allowing greater freedom to the part, the ambulatory treatment and that by massage and passive movements. The first consists in approximating the fragments, applying a fixation dressing by extension which can be kept up by its application against points of vantage as the tuberosity of the ischium for fractures above the knee and the head of the tibia for fractures below the knee; and elevation of the sole on the sound side and a prolongation of the splint to a corresponding distance below the sole on the injured side. Permit the patient to bear the weight of the body alternately on the two sides, the weight being transmitted on the injured side, from the tuberosity of the ischium or the head of the tibia, as the case may be, through the splint to the ground. Thus he escapes confinement to bed and has the benefit of out door exercises. It is said that muscular atrophy is prevented and the gentle stimulus of motion hastens union. By massage at or near the seat of fracture with passive movements of the

near joints is a method which entails great labor, but has much in its favor. The ideal treatment of simple fractures after reduction should meet the following indications. Retain the fragments as near the normal as may be. Splints or other dressings should be easily removable without disturbance of the fracture. No constriction to impede the circulation. Dressings to be removed at short intervals to permit examination, massage of the callus and neighboring muscles, gentle stimulation of the growth of callus by the slight disturbance incidental to removal of and reapplication of dressings and passive movements of adjacent joints, when these can be done without disturbing the relation of the fragments. The most important accessory is the removable splint which fits the part so accurately that the reapplication is never a matter of experiment and is so light as to be no burden. He preferred the plaster of paris splint, as easily and quickly applied, fits accurately, causes no discomfort, can be removed and reapplied as needed. The cost is trifling and it is portable. In its application, an outline of the shape desired is cut from a double layer of lintine, a firmly compressed cotton sheeting. One layer is placed on a table and two gypsum rollers are soaked in plain cold water till the air bubbles cease to rise. One of the plaster rollers is then spread on the layer of lintine as it lies on the table. The plaster roller is passed back and forth, end to end of the lintine till the figure is entirely covered from four to six thicknesses. This is laid as smoothly as may be and can be made thicker at some parts if desired. When the desired thickness is attained the other piece of lintine is applied to the upper surface, to which it will adhere. The edges are then trimmed with scissors, where the plaster overlaps and the splint is ready for application. It is as flexible as a wet dishrag. The limb is elevated and the splint applied to the surface and held by an assistant. The application of a roller adapts this moist and clinging splint exactly to every inequality. The limb can now be placed on a pillow and steadied, while a splint of the same kind is prepared for the other aspect of the limb if necessary. By the time this is ready, the first will be found hard enough to support the part. The second is applied to the other aspect over the muslin roller and the dressing is complete, and in ten minutes will be hard. When desired to remove and reapply, each should be applied in its turn and with its own roller. Thus no part of the limb can be pinched between the edges as often happens when both splints are applied directly to the skin by a single roller. No paddings should be placed next the skin, unless as a dressing as in compound fracture. All dressing must be light and be duplicated when the splint is removed. Should the splint cause discomfort by pressure this part should be cut off and pressure will be at once removed. In conclusion he called attention to the advantages of the infusion of large quantities of normal salt solution into the veins after hemorrhage from accident or operation. One or two pints are often used, even many quarts. He had reported a case with profound loss of blood from a limb crushed so as to need amputation, into whose veins during the six hours before operation, he infused six quarts of saline solution with the gratifying results of reaction and recovery. Later he had used even larger quantities with marked benefit. He was convinced that this procedure is not appreciated and the failure of the salt solution is from the want of a sufficient quantity and the abandonment of the treatment too soon.

DR. J. W. MOORE, Easton, read the

ADDRESS IN HYGIENE.

The writer believes that there is real danger to the cause of sanitary reform from too hasty acceptance of theories which result in proposing, adopting and enforcing regulations which are a hardship to the people without accomplishing good. Every regulation founded upon theories which have failed to stand the test of scientific examination react in the minds of the voters to the detriment of the cause. Having these views he showed the weak places in the modern theory of the origin and dissemination of contagious diseases. He claimed that evidence from clinical, bacteriologic and epidemiologic sources must agree and that in particular diseases they did not and therefore the parasitic origin is not proved. Opinions can not establish contagion nor analogy nor imperfect induction from insufficient data. Science is often retarded by the expression of opinions by learned men. Newton himself is responsible for the backwardness of the science of optics. We must avoid the confusion of coincidences with similarities. The old proofs of contagion are not obsolete; truth never is. But in the case of tuberculosis, for example, they will not apply because the disease is too old, the distribution too wide and the cases too chronic. The modern theory of parasitic origin of disease is fascinating and has many points which appeal to our minds by their truthfulness. The researches of Koch, Pasteur and others have opened a boundless field for investigation. Let us honor them always. In this department of science as in others the disciples with less knowledge claim more than their masters. Koch for example insisted upon four postulates; many of his followers accept contagion on even one; some on none proved. These postulates have become rather ancient history, but Koch was right; they are not axioms which are self evident but postulates, the truth of which may be denied. In the meantime other questions have been opened up which make the investigation still more difficult. The crucial test of the theory is the reproduction of the exact disease in man; this had not been effected. The results of a laboratory experiment can not be predicated of an experiment performed by nature in her own way; so many new conditions are introduced that to conclude from the first that the second will show the same outcome is absurd. The possibility and the probability of infection must be distinguished when the question of actual contagion is taken up for discussion. The conditions are so different that the experiment is practically not the same. The same disease is not equally contagious under the same apparent circumstances; the same disease is not equally communicable to different persons nor to the same person at different ages. Hence all contagious diseases are not to be subjected to the same regulations.

DR. J. M. BALDY, of Philadelphia read a paper on

PELVIC PERITONITIS

from the standpoint of the general practitioner. Acute pelvic peritonitis has received little consideration of late years from this standpoint, the impetus generally being surgical. A surgeon naturally prefers surgery, but the physician is apt to adopt the methods in which he has the most confidence. Both may be right within limits. An attack may be due to a chronic disease of the Fallopian tubes which may have existed for years. Therapeutics may cure the existing peritonitis but fail to cure the woman. He desired to impress two aspects, the diagnosis and the more important non-surgical methods of treating this trouble. The diagnosis is important, as it aids materially in the conduct of the case for or against operation. It is a fact that such cases are often treated rationally without a knowledge of the exact cause. But it is not right to act thus in the dark. Still the cause can not always be detected even by the most skilled. The medical treatment is to a great extent routine; rest, depletion and relief of pain. Opium fulfills two indications—rest and relief of pain, but defeats the third, depletion. Rest in bed must be followed by functional rest. If in no other way by large soft vaginal tampons worn between treatments, frequently replaced and not so as to press upon the posterior parts of the vagina too firmly. Wool is best. Depletion is obtained in two ways. Direct scarification or leeching of the cervix gives remarkable relief. The great remedy is hydragogue cathartics, the salines. A teaspoonful of magnesium sulphate each hour till the bowels operate. Secure half a dozen or more movements in a few hours, the last being purely serous. Often the attack will subside with the purgation; the abdominal distension subsides, pain and tenderness are relieved, pulse is normal and convalescence ensues. Hence it is not believed to be peritonitis. Abdominal section frequently shows an abdominal and pelvic peritoneum free from trace of inflammation. Such are the cases which are relieved by a purge. In true inflammatory attacks, the purge is only a step in the treatment. If magnesia is rejected by the stomach, calomel in grain doses half a dozen times, followed if possible by one or two doses of saline, and finally a large enema of hot soapsuds is an excellent substitute. The peristaltic action thus caused often increases the pain. If unbearable, opiates in form of hypodermatics of morphia (one-sixth or one-fourth) need not be feared if needed. Depletion thus obtained should be followed by the application of the vaginal douche twice daily. Its first effect is to cause congestion, and unless pushed to the extent of procuring the secondary effect of the hot water (the shrinking and blanching of the tissues) it will do harm. Counter irritation, poultices, etc., are of doubtful value. They may serve the purpose of allaying the mental condition. The attack will be of more or less duration as the underlying disease. Attacks which keep the patient in bed a month or six weeks are to be suspected of suppuration. Diet should be regulated and the excretions kept in good condition. Antipyretics are not needed. When up, she must avoid all undue exercise or sexual indulgence till pain has entirely gone. Proper regulation of clothing, etc., need not be emphasized.

Full discussion by a number ensued on this practical paper.

DR. JAS. FULTON, of Chester, read a paper on "Alcoholic Stimulation in the Treatment of Disease." He endeavored to show why such remedies are so popular with the community at large; why so generally used by physicians in typhoid fever, in consumption, in delirium tremens, shock, etc.

DR. G. HUDSON MAKUEN, Philadelphia, read a paper on

THE DIAGNOSIS AND TREATMENT OF SPEECH DEFECTS.

He exhibited a little boy who read quite well and clearly as the result of his efforts. After discussing the importance of speech as a factor in mental and physical development, the possibilities of its improvement and the complexity of its mechanism, he said that with our present limited knowledge, any classification of the defects of speech is difficult to make, but they may be divided with reference to their causes, into two general classes, namely, those of cerebral and those of peripheral origin. He then cited from his note book three cases to illustrate how difficult it is oftentimes to determine the exact cause. One case, a boy 19 years of age, with arrested development of speech, and the other two stammerers. It was supposed that the first case was of cerebral origin, but both the first and second cases were cured completely by simple operations, the first by the division of the anterior fibers of the genio-hyo-glossus muscle and the second by the removal of an adenoid growth. This patient was exhibited to the society. The third case is still under treatment directed toward the reduction in the size of the epiglottis. He said he would operate for defects of speech only when there are structural peculiarities or pathologic conditions interfering with the normal action of the organs. He thought even slight obstructions sometimes cause trouble and should be removed, especially when they are found in children. They interfere either mechanically or reflexly through the nervous system, but more often in both ways. After these irregularities have been corrected and obstructions removed the faulty habits of speech must be broken up by appropriate exercises. Only those having made a special study of speech can do this successfully. He said no definite rule can be laid down as to the special kind of training. The exercises must fit the case. They must develop undeveloped muscles. He closed by saying that many cases have been supposed to be of cerebral origin and incurable which were in reality due to some slight abnormality in the peripheral organs which if detected would easily be remedied, and he urged the necessity of greater care on the part of the profession in the study of these cases.

DR. J. W. ROOP, of Harrisburg, read a paper,

GELSEMIUM AS A REMEDIAL AGENT.

The root is used, though the flowers and leaves contain the medical properties in large quantities. The effects depend on the presence of an alkaloid soluble in ether and chloroform, less in alcohol or water. It is more particularly valuable in controlling nervous irritability in periodic fevers of a malarial type. Lately it has attracted attention for neuralgic attacks. The earliest symptoms in large doses are dim vision, drooping eyelids, inability to open the eyes, etc. Antidotes are nitrite of amyl by inhalation or hypodermically. This acts instantaneously as a nerve and arterial stimulant. Also, carbonate of ammonia, brandy, morphia, electricity, till the poison is eliminated. In twenty-six years' experience he had used this drug thousands of times without toxic effects, in tincture or fluid extract, and was convinced that it is a most valuable remedy, beginning to act in half an hour and ceasing in one or two hours. He preferred the tincture as safest. Dose, five drops to adults; to children, in proportion till the physiologic effect is obtained, that is, dim vision, etc. Then omit till these pass off and resume. In facial neuralgia and nervous headaches it has no rival. It may be combined with muriate of ammonia, or with quinia; it corrects ringing of the ears and the headache often produced by quinin. It promotes the action of this drug and in diminished doses. In chronic malaria, gelsemium with liquor potassæ arsenitis is valuable, preventing relapses. The cough of bronchitis is relieved by it. Acute muscular rheumatism is also amenable to it, the patient being put under blankets and three to five drops given every hour till free sweating results. With nux vomica it has a remarkable influence on the spinal nerves. Many nervous affections are cured by it in this combination. Added to the bromids, it often cures neuralgias of nervous women and relieves the pain and tormina of the bladder, and in diseases of the rectum. With belladonna or morphia it increases their anodyne powers. In infantile inflammations in quarter or half drop doses it is of great value. In rigid os uteri, etc., in puerperal convulsions and nausea and vomiting of pregnancy, he has found it of value. Where opium is contraindicated, it comes in with good results. As a guide for its use, he laid down the rule that where we find a flushed face, bright eyes and contracted pupils it is the remedy, either alone or combined as indicated.

DR. E. E. MONTGOMERY, of Philadelphia, read a paper on

THE TREATMENT OF PELVIC INFLAMMATORY CONDITIONS THROUGH VAGINAL INCISIONS.

He advocated the practice of vaginal incisions for pus collections in the broad ligament, in the tubes, when large purulent or serous collections in the pelvis, for exploration and for the evacuation of hematocele. He preferred abdominal incision for the removal of one ovary or tube and for fixation. Cases of retrodisplacement with adhesions may be treated as suggested by Pryor, by opening the posterior fornix of the vagina, breaking up adhesions, replacing the uterus and maintaining it in position by gauze packing. In cases where the functions of both ovaries and tubes are destroyed, so as to render their removal necessary, the vaginal route affords, in the majority of cases, the most favorable way for the removal of the diseased structures, and the uterus should be removed with the appendages.

At the afternoon session the Committee on Nominations reported the following: President, E. E. Montgomery, Philadelphia; vice presidents, C. S. Shaw, of Pittsburg, F. P. Ball, of Lock Haven, T. M. Livingston, of Columbia, and A. C. Wenz, of Hanover; secretary, William B. Atkinson, Philadelphia; assistant, Adolph Koenig, Pittsburg; treasurer, Geo. B. Dunmire, Philadelphia; and censors and delegates to sister societies and the AMERICAN MEDICAL ASSOCIATION and the Pan American Congress.

Pittsburg was selected as the place of meeting for 1897, with Dr. T. D. Davis, of Pittsburg, as Chairman of the Committee of Arrangements.

DR. ISRAEL CLEAVER, Reading, read the "Address in Obstetrics." He alluded to the work under this head for the period since 1873.

DR. F. S. PEARCE, of Philadelphia, read a paper on

A CLINICAL REPORT ON THE USE OF TESTICULAR FLUID INJECTIONS.

Males, 30; females, 10. The diseases were locomotor ataxia and the sclerotic cord diseases, paralysis agitans, neurasthenias, especially of the sexual type. Injections were given under strict antiseptic precautions in the buttocks or thighs or arms. Passive massage of the parts was practiced to encourage diffusion, and thereby prevent irritation. In the 500 injections given by Dr. J. K. Mitchell and the writer, there had been but two abscesses produced. Average amount of injection that seemed to act most advantageously was between twenty and thirty minims, diluted with distilled water. Every other day seemed most desirable time for injections in order to prevent irritation, which frequently occurs. If pushed to the point of endurance, the B. S. Fluid produces nausea, vomiting or diarrhea.

In the nineteen cases of locomotor ataxia treated, sixteen were in males, of which eleven seemed to be stimulated to at least temporary improvement by the remedy. In five cases no result was obtained. In one, injections of water acted the same as B. S. (psychic). A large proportion of these ataxias were in the advanced stage of the disease. Sexual power was much reduced or, indeed, impotence existed. Of the eleven male ataxic cases improved, the effect was of a general stimulation of the nerve tonus, described by the patients as a sense of "well-being." There was an ease of breathing and increase of pulse force, as though the respiratory and cardiac centers were buoyed up to more active work. In some ataxics increasing muscular strength and co-ordination was attained; the patients being able to endure more exertion. This was especially noted in number 22, who persisted that he could feel stimulation creep over him as early as twenty minutes after the injection. He finally had nausea and diarrhea, due to the effects of too large dosage.

Pain was somewhat lessened in three cases. Along with the general stimulation and bettered coördination in the eleven males quoted, there was in addition, in four of them, as seen above, very marked increase of sexual power and a general sense of comfort. The above series of ataxic cases present positive results. The remaining cases did not carry out the treatment, or else it proved inefficacious, in both of which instances they are classed together as failures. From the above cases it can not be concluded that the effect of testicular extract is to produce sexual increase mainly, but rather that the sexual increase falls in line with the general stimulation, but not always so. What is most clear in any of the cases in which we have used the drug, is that a general stimulation is the most frequent method of its action for good. To the above cases Dr. S. Weir Mitchell can add two occurring in old men in which B. S. injections caused this general stimulation and great increase of sexual power, the latter so much so as to be annoying in one case. The Brown-Séquard treatment has proven of stimulat-

ing and rejuvinating power in disease of chronic nature where nerve energy at a low ebb, whether in organic or so-called functional neuroses; and these aside from psychic influence. The effect may be to increase oxidation or to supply something the body needs, as in other organo-therapy, and thus to supply a temporary tonic to the system which acts by general stimulation; it at times relieves pain and crises in organic cord disease; it may greatly stimulate the sexual function. There can be no claim made for this agent to act as a cure per se in any malady, certainly not in any sclerosis. It may prove one of the aids toward recovery from the vicious circle of disease. There seems to be no criterion to judge the cases in which good or failure may be expected. Sometimes an unexpected happy impetus to waning vital powers may be rekindled by the drug, which does good for the time being, and paves the way for other therapeusis to take hold of the system. It may too open the blood paths more widely about a sclerosed area and thus add to nutrition of the part transiently. It is not entended to laud the remedy, but to present the clinical evidence of its limited usefulness in disease.

DR. JAMES M. ANDERS, of Philadelphia, read a paper on

SOME THERAPEUTIC USES OF GUAIACOL.

That guaiacol is a valuable medicinal agent is allowed by all who have employed it in suitable cases. The complaints in which it is serviceable are divisible into three groups, which are considered separately.

Group 1. Febrile Affections. These are acute and chronic. Of the acute febrile diseases in which it has been used, typhoid fever, the pneumonias, lobar and lobular, stand foremost. It is an antipyretic when applied to the skin in the proper amount, and according to the experience of some of the physicians who have thus used it most extensively, it is practically free from unfavorable effects. Dr. H. G. McCormick has applied guaiacol more than eight hundred times in typhoid fever with uniformly good results. He has occasionally observed chills, but these were noted when the temperature as the result of a topical application of guaiacol, dropped below 100 F., and they were not followed by increased fever nor increased weakness. The occurrence of rigors is a certain indication that the dose has been too large and hence should be lessened immediately. On the other hand, while he has used guaiacol in but two cases of typhoid fever, in one of these its use was attended by rigors both on the thirteenth and sixteenth days of the affection, followed by a rapid rise of temperature to a higher level than the previous maximum temperature. Rosenthal, of Philadelphia, observed a similar effect in a case of typhoid fever. Thayer has also reported marked chills from its use. Still other observers have noted a decided weakening effect when guaiacol was employed as an antithermic agent. But though guaiacol does not possess the obvious and numerous advantages for the patient that the Brandt method does, it may very properly be employed in cases in which the cold baths can not be instituted on account of the existence of an insurmountable prejudice, or of contra-indications to the latter, such as intestinal hemorrhage, acute nephritis, otitis media, etc. Its internal administration in the form of the carbonate of guaiacol in typhoid fever is to be highly recommended since it reaches the intestinal canal before it is disassociated or absorbed. Under these circumstances there is opportunity for the remedy to make a direct attack upon the typhoid bacillus. I have had no personal experience with guaiacol in the treatment of typhoid fever, but have used it in acute and chronic forms of intestinal catarrh, accompanied by fermentative processes with truly excellent results. In a paper previously published may be found the report of a case of broncho-pneumonia in which this antipyretic was employed (in half dram doses), the patient making a good recovery. The applications of the remedy were not followed by so marked a reduction of temperature as in typhoid. More recently, I have used guaiacol in two additional cases of broncho-pneumonia with like results. It would appear from my own observations that fever dependent upon local inflammations is to a less extent reduced by guaiacol than when due to general causes. Pulmonary tuberculosis is the one chronic febrile disease in which guaiacol has been frequently employed. J. S. Cohen has noted a striking reduction of temperature following its external use in this disease. I have employed it in a few instances of chronic phthisis quite recently, and while it has reduced the temperature decidedly, the profuse sweatings and occasional debilitating effects induced by the remedy, have led me to abandon its employment in this affection.

Group 2. The second division of cases are the non-febrile. These embrace chiefly myalgic and neuralgic pains. The local physiologic action of guaiacol is that of a decided sedative. Thus, when administered internally it allays the irritability of the nerves terminating in the gastric mucosa. In the paper referred to there are reported cases of gastralgia successfully treated by guaiacol, given in doses of two or three minims, combined with glycerin. Later observations have confirmed the favorable opinion previously expressed as to the value of this agent in gastric hyperesthesia or irritation of the sensory nerves of the stomach, when cautiously used. Ferrard first employed this drug in sciatic and other forms of neuralgia (painting it over the course of the nerve, mixed with an equal part of glycerin). Eight cases of neuralgia in which guaiacol was the chief reliance I have reported previously. In three of these, the drug was exhibited hypodermically, the dose being one or two minims combined with ten minims of spirits of chloroform. I can now add the results obtained in four additional cases of neuralgia treated in this manner. To be brief, among them, two affected the supraorbital branch of the fifth pair, one the intercostal nerves and one the left sciatic nerve. In one of the cases of supraorbital neuralgia there was a distinct history of antecedent malaria, hence quinin (20 gr. daily) were exhibited *per os*. Additionally, two minims of guaiacol and ten minims of chloroform were administered subcutaneously at the point at which the nerve emerges from the deeper structures. This was repeated at the end of twenty-four hours, after which the pain ceased permanently. In the other case of this form of neuralgia no special causal factors, except, perhaps, exposure to cold and wet, could be ascertained. Here it was necessary to inject the guaiacol twice daily for two days before permanent relief was obtained. One of the cases of intercostal neuralgia in which this agent was employed arose in an anemic and neurasthenic female. Beside the means, internal and sanitary, usually resorted to in such cases guaiacol was applied externally during the first week, with the result of affording only temporary relief. Subsequently the guaiacol was exhibited hypodermically. After the fourth puncture the pain yielded and has not since returned. In the case of sciatic neuralgia injections of guaiacol failed to cure, but greatly relieved the pain when administered at intervals of eight or ten hours. Thus eleven out of twelve cases of neuralgia were successfully treated by the use of guaiacol. In one-half or six of the instances the drug was used hypodermically, with five cures. In some of the latter the pain showed great obstinacy, and was not relieved by the external use of the drug, but yielded when it was injected subcutaneously. Muscle pains due to cold, old sprains or rheumatism are also promptly relieved by the local use of guaiacol.

Group 3. Inflammatory Processes. Guaiacol has been used by myself and others in acute forms of inflammation, especially the rheumatic. As I said elsewhere it serves admirably to relieve pain of rheumatic origin, "but it does not appear to cause any reduction of rheumatic inflammatory processes." In no form of acute inflammation have I been able to observe any antiphlogistic effects from the employment of this agent. A few inferences which are based upon personal experience, may here be stated and emphasized with a view to facilitating a a discussion of the subject of the therapy of guaiacol: 1. Guaiacol effectually reduces the temperature in febrile affections, but it may produce objectionable effects such as profuse sweatings and rigors, followed by high temperature. 2. In afebrile diseases it is free from unpleasant effects. 3. It is an effectual local anodyne, both when administered internally and to the skin surface over the seat of pain, but it is especially potent to relieve neuralgic and myalgic pains when administered hypodermically. 4. It is "powerless to control inflammatory processes, particularly when they are acute in character."

(*To be continued.*)

Illinois State Medical Society.

Abstract of the Proceedings of the Forty-Sixth Annual Meeting, held at Ottawa, May 19, 20 and 21, 1896.

(*Concluded from page 1130.*)

DR. NORVAL H. PIERCE, Chicago, made some remarks on the "Modern Pathology and Treatment of Acute Middle Ear Inflammations."

METATARSALGIA, WITH A REPORT OF THREE CASES OF WHAT IS TERMED MORTON'S PAINFUL AFFECTION OF THE FEET

was read by DR. A. E. HALSTEAD, Chicago. After dealing with this subject in an exhaustive manner, the author drew the following conclusions:

1. That what is known as metatarsalgia is not in the beginning a distinct pathologic entity, but rather an early symptom of static flat foot. In cases of long standing, irritation of the plantar nerves by pressure of the transverse metatarsal arch

may cause an inflammation of the nerve, or even in some cases the development of a neuro-fibroma.

2. That most of these cases can be permanently cured by following the treatment usually employed in beginning flat foot—*e.g.*, systematic massage, gymnastics, and the use of properly fitted shoes, and in some cases the application of a metallic brace to the sole of the foot.

3. In cases of long standing, where there is well-marked pathologic change in one or more of the branches of the plantar nerves, resection of the nerve should be performed. The more radical operations, such as resection of the metatarsophalangeal joint or amputation of the toe, are not indicated.

Dr. E. Mammer, Bloomington, read a paper entitled

CHOLELITHIASIS; A PLEA FOR OPERATIVE TREATMENT.

All cases which are not promptly relieved by the passage of small stones, or by therapeutic measures effectively and judiciously employed, at once furnish true indications for resort to cholecystenterostomy. The operation can be safely done and will be successful when calculi are in the gall bladder only, when they are in the gall bladder and in the cystic duct, and when they are in the ductus communis choledochus, and can be removed, or when, even if left there, the bile will find a free passage by the new channel; in febrile cases, where the stone or stones are impacted behind the duodenum, and where the new channel will allow passage for both bile and pancreatic fluid into the bowel, provided no purulent inflammation has preceded. So long as such cases have not gone too far, cholecystduodenostomy, preferably by means of a No. 2 Murphy button, will furnish a safe and easy remedy.

Indications for operation in such cases as the above may be obtained by carefully weighing all symptoms and a thorough study of them in all their relations. The author reported two cases upon which he had operated successfully. He made an eloquent plea for early operation in gallstone cases, and closed by saying that to wait until all internal remedies failed was not rational, for no remedies existed against large calculi. By the timely advice of the physician and the surgeon's technical skill, patients with hepatic calculi should be early and readily relieved, and thereby the percentage of recoveries would be materially increased.

VAGINAL SECTION FOR THE CURE OF RETROVERSION OF THE UTERUS

was the title of a paper read by Dr. Henry T. Byford, Chicago, in which the author described the technic of the method which he had employed, as follows: The vulva and vagina are thoroughly scrubbed with soft soap, then with strong alcohol and with a 1 to 2,000 solution of bichlorid of mercury. The uterus is dilated and curetted and disinfected with mild or strong solutions according to the requirements of the case, or the notions of the operator. This preparation is necessary to prevent the infection of the connective tissue and buried ligatures.

A transverse incision, a trifle over an inch long, is made in the vaginal wall just in front of the cervix, and the bladder separated from the uterus by the finger as far up as the peritoneal reflection. Then a longitudinal vaginal incision about two inches long is made in the median line from the neck of the bladder to the middle of the transverse incision. The bladder is separated from the vagina for a short distance on either side of the incision to give room for manipulation. The peritoneum is then torn across between the uterus and bladder, an intraperitoneal pelvic examination is made, adhesions are separated, and such parts are treated or removed as may require it. The bladder peritoneum is then seized by forceps and drawn down by successive grips until that which belongs behind the pubes can be seen. Two chromicized catgut threads are introduced about one inch apart through this portion of the peritoneum and subperitoneal tissue as high as possible. Then the anterior surface of the uterus is grasped with tenaculum forceps, and the fundus pulled into the vaginal wound and attached to the bladder by means of the above mentioned catgut threads. The finger is now hooked over the left round ligament, which lies beside the vaginal wound, a loop of the ligament drawn into sight, grasped by forceps and pulled down until the inguinal end is taut. A catgut suture is put through it as far from the uterine end as possible and is made to attach to the uterus just above the normal uterine insertion, which is easily exposed to view by the vaginal retractors. The same is done to the right ligament. The entire vaginal wound is closed with transverse sutures that reunite the bladder to the vagina, and also draw the ends of the transverse incision together, leaving one row of sutures in the median line. This lengthens somewhat the anterior vaginal wall and draws the connective tissue together in front of the cervix. A few inches of a narrow strip of gauze is placed in the connective tissue in front of the cervix, to be removed in twenty-four hours by pulling on the end which projects between the sutures into the vagina.

Dr. Byford has operated upon ten cases in this manner, beside one case in which he merely sutured the fundus over the bladder, and in each one the uterus has remained in a normal position without the aid of a pessary at any time. The comfort is greater and the complaint much less than after Alexander's operation, and the patient is not conscious of a wound or sore place. In addition to these advantages the gynecologist obtains, while operating, a definite knowledge of the conditions of the pelvic organs and the possibility of correcting them.

The uterus has no abnormal attachments except the two points of peritoneal adhesion to the bladder, and there can be nothing to fear from subsequent pregnancy.

Dr. A. H. Ferguson, Chicago, read a paper entitled

IODOFORM INJECTION TREATMENT OF HIP-JOINT DISEASE.

The intra-articular medication of tubercular joints, he said, was of recent date and was not yet very widely employed. It was with the hope of stimulating the profession to use it more and more that he presented his views on and experience with this treatment. The hip-joint had been selected on account of the frequency with which it is diseased, and because, in the speaker's hands, it had been more amenable to the iodoform emulsion injection than any other joint.

The objections to the hitherto recognized methods of the treatment of hip-joint disease were: 1, the high rate of mortality; 2, the long time that the patient was under treatment; 3, the great deformity that so commonly ensues; 4, the complications that are liable to set in and carry off the patient. The author then outlined the manner of using intra-articular injections of iodoform emulsion.

As to the time of treatment, the longest period that he deemed it necessary to pursue the injection method before a cure was effected, was nine months, and it was a case well advanced in the second stage. He had treated upward of twenty-five cases with the most satisfactory results, and which so far appear to have been cured with the exception of two cases, one who refused to receive the subsequent injections, and the other had marked tuberculosis of the apices of both lungs, but he gained over twenty-five pounds during the five months he was under treatment.

ANNUAL DINNER.

The second annual dinner of the Society was held in Armory C. Dr. John B. Hamilton, Chicago, acted as toastmaster. The toasts were responded to as follows:

"The Clergy," by Father H. A. O'Kelly, Streator.

"The Bar," Hon. Duncan McDougall, Ottawa.

"The State Medical Society," President Dr. David W. Graham, Chicago.

"The Ex-Presidents," Dr. John H. Hollister, Chicago.

"The American Medical Association," Dr. E. P. Cook, Mendota.

"The Pharmacists," Mr. Rogers, Chicago.

"Our Guests," Dr. James T. Whittaker, Cincinnati, Ohio.

"The Young Physician." Dr. E. J. Brown, Decatur.

"Our Medical Journals," Dr. O. B. Will, Peoria.

"The Ladies," Dr. Fenton B. Turck, Chicago.

Dr. Norval H. Pierce, Chicago, rendered two musical selections which greatly pleased the audience.

THIRD DAY—MORNING SESSION.

Section One—Third Session.

Dr. F. C. Robinson, of Wyanet, read a paper on the "Treatment of Tuberculosis by Aseptolin." The author reported one case treated by this remedy and declares it an absolute failure, and says it is unworthy the confidence of the profession.

Dr. E. W. Zook, Peoria, followed with a paper on

WHAT MEASURES BEST RESTRICT THE SPREAD OF TUBERCULOSIS.

The restriction of the spread of tuberculosis, while not a new subject, was one that had not been given the attention it deserves. The author believes that the time is not far distant when a specific cure for tuberculosis will be discovered, but until that time comes, we will have to rely upon preventive measures, and if these can be uniformly enforced, he thinks we will without doubt be able to check the spread of this disease, but in order to do it we will have to put forth our best efforts.

Dr. H. W. Gentles, Chicago, read a paper on "The Pathology and Treatment of Chronic Alcoholism."

Dr. Alex. C. Wiener, Chicago, read a paper entitled

PERMANENT AMBULATORY EXTENSION IN SURGERY.

He said that in fractures of the shaft of the tibia or femur absolute immobilization of the bones in the normal position either by compression bandages or weight extension is indis-

pensable, but is it absolutely necessary to have the patient rest in bed all the long weeks until consolidation is perfect? The speaker replied in the negative. The surgeon gives his patient a dressing tightly fitting to the outlines of the extremities so as to keep the fractured bone in a correct position and to regulate the impaired circulation so that the injured can put his legs on the floor without pain. In order to allow the patient free mobility the patient is supplied with an apparatus which Dr. Wiener described and which seemed to be very practical and useful in the treatment of the cases under consideration.

Section One—Third Session.

DR. J. M. G. CARTER, Waukegan, in a paper entitled

FUNCTIONAL INDIGESTION, ITS CAUSES AND TREATMENT,

stated that the term indigestion referred to a condition, not a disease. This disturbance then was always functional. The following indications may be regarded as pointing out the course of correct treatment in the class of cases considered in the paper, to be varied to meet the necessities of individual patients; 1, remove the cause; 2, check or prevent the growth of bacteria; 3, assist digestion, and 4, repair damages done. These indications were then dwelt upon at length.

In conclusion, he said that the causes of functional indigestion were some indiscretion in diet; some irregularity in the time or manner of taking food or drink; the presence of certain species of bacteria; some neurosis or reflex disturbance; some sudden mental or emotional excitement.

DR. FENTON B. TURCK, Chicago, made some remarks upon the pathology of gastritis and demonstrated his method of treating this affection on a patient. He went over substantially the same ground as that covered in his previous and numerous contributions to medical literature on this subject, and with which most readers of the JOURNAL are more or less familiar.

DR. E. S. PETTYJOHN, Alma, Mich., read a paper entitled

THE DIFFERENTIAL DIAGNOSIS OF NEURASTHENIA AND ITS TREATMENT,

in which he said that ever since Beard used the term neurasthenia, and Van Dusen directed attention to a group of symptoms so named, the profession had been struggling to map out a definite set of symptoms to be thus classified, and in his opinion we had as yet but poorly succeeded. Althaus, of London, protests against the term and Gowers says that nervousness covers the conditions. Different writers give different illy defined symptoms and subdivide them into cerebral and spinal symptoms, some observers even finding varied local conditions which they characterize as neurasthenia. There is one thing upon which authors are agreed, namely, that this group of symptoms indicates disease of some part or every part of the nervous system; that there is a marked defect in the nutrition of the cerebro-spinal axis, giving an almost endless variety of symptoms difficult to classify. The changes noted in the patient come on gradually. These changes were described and which occur in cases of neurasthenia. The author believes that neurasthenia as a distinct disease does not exist. It was simply a popular term among the laity, and many a young woman had become useless in the world of action because she thought she had neurasthenia. Physicians were to some extent to blame for encouraging this popular delusion.

Under the head of treatment the author expatiated upon elimination, food and environment. A systematic course of hydrotherapeutic treatment in addition to medication was essential to the best results, particularly with reference to elimination through the skin. Recumbent rest and active exercise he prescribes in frequent alternations for every day with methodical regularity. For stimulation of the nerve centers a hot fomentation of the entire spine, or the alternation of the fomentation and ice to this entire region produces admirable results. The patient's environment should be pleasant, agreeable and often unhomelike.

DR. JAMES T. WHITTAKER, Cincinnati, Ohio, delivered the Address of Section One. He selected for his subject

CRYPTOGENETIC SEPSIS.

The author said that the terms pyemia, septicemia, sepsis, septico-pyemia, are variously employed by different authors. There is no longer support for the different terms. Pyemia was the term first employed. It was a useful term because it expressed a poisoning of the blood by pus and connected this poisoning with a pus center. So distinct was this connection that the people understood it in the common term "blood poisoning." But the mere presence of pus in the blood does not necessarily produce blood poisoning. In one sense there is always pus in the blood, that is, there are white blood corpuscle, leucocytes, and these corpuscles accumulate in leucocytosis to constitute a protective process. Pyemia is now generally understood to mean infection of the blood as indicated by multiple metastases, in the absence of any central depot of suppuration; whereas, septicemia is used to express the infection of the blood in which there is a decided depot in the absence of demonstrable metastases. But it is plain to see that these are distinctions without much difference. The term pyemia having served its purpose should in the opinion of the author be retired altogether. Lines may be drawn between septic intoxication and septic infection, understanding by intoxication poisoning from the absorption of chemic matters, ptomains, toxins, and by infection poisoning by the direct penetration of bacteria. But in practice these various poisonings are so commingled as to be inseparable in most cases. Modern medicine, which is based upon etiology, prescribes that parentage alone should give the name to a disease. All the symptoms which have been grouped under the terms pyemia, sepsis, septicemia, etc., are produced by the same cause, namely, by the pyogenic microörganisms. The speaker believes it would much simplify matters to retain the term septicemia to express the whole train of symptoms caused by the infection of the blood with pyogenic microörganisms, whether bodily as by bacteria, or chemically, as by toxins.

It is believed at the present day that rheumatism is caused by microörganisms closely allied to, if not identical with, the microörganisms of pus. Goldscheider demonstrated bacteria in the serous exudation of pleurisy, which he believed to be due to rheumatism. Upon cultivation these microörganisms turned out to be staphylococci. Sahli developed cultures of a microörganism from the exudation of endocarditis, which turned out to be the staphylococcus citreus.

Dr. Whittaker made the point that many of the lighter forms of disease, which have been vaguely described as rheumatism, as malaria, as incipient tuberculosis, as la grippe, as a bad cold, are cases of light infection with septic matter in which the microörganisms of sepsis may be found in the blood, and that individuals, the frequent subjects of these diseases, are carrying about in them manifest or more especially concealed depots or colonies of septic microörganisms.

The term cryptogenetic sepsis is really reserved for the cases in which the source eludes detection during life. Sometimes it may be disclosed upon the postmortem table, and such cases have found explanation in suppurating bronchial glands, mediastinal depots, prostatic abscesses, latent endocarditic processes. The avenue of entrance is found in any possible injury of the skin and mucosa, wounds of operations, etc.

The outside origin of sepsis is clearly indicated in the septicemia of the newborn. According to Epstein, septic infection of the newborn occurs, 1, at the umbilicus; 2, from the mucous membrane of the mouth, and 3, from the mucous membrane of the female genitals.

The prognosis of cryptogenetic sepsis is always serious, but depends upon the virulence of the poison, the height of the fever, the weakness of the heart, the gravity of the nervous system and the character of the complications.

The treatment may be dismissed in a few words. The prophylaxis depends upon an increase in the general habits of cleanliness, the greater frequency of ablutions and more care for higher sanitation. People should be informed of the possibility of infection from the most minute injuries and should be warned against handling decomposed substances or from ingesting decomposing foods. The author said nothing concerning the specific treatment of septicemia, for the reason that the entire subject was still too new to formulate definite conclusions. Finally, he hoped some young bacteriologist in our country would find in this subject an incentive for further study.

DR. J. O. DECOURCY, St. Libory, briefly outlined the medico-surgical treatment of anthrax.

DR. J. E. SUTTON, Canton, read a paper on "Tedious Labor." The object of this contribution was to assist in bringing about a better understanding among general practitioners of the symptoms and difficulties attending occipito-posterior presentations.

DR. HENRY P. NEWMAN, Chicago, followed with a contribution entitled

FACTS, FADS AND FALLACIES IN GYNECOLOGY.

Less than a century ago the name gynecology was unknown, and the principles governing the treatment of the diseases of women were shrouded in darkness. The author briefly traced the steps in medical progress—anesthesia, anatomic and pathologic discoveries, and greater clinical advantages, which he said were all causes which had made possible the high state of advancement attained in the treatment of diseases of women.

Our predecessors in practice had their hobbies and their prejudices and fought for them, not as in the fraternal discussions of

our day, but with bitter pen and bloody sword. Perhaps the amenities of modern professional life were to blame for the rapid spread of some prevalent fads. The well-nigh perfect methods of gynecologic and obstetric work had enabled physicians to snatch thousands of women from premature graves, or relieve them of the numberless ills to which female flesh is heir, but have we thereby made womankind the gainer? The question seemed like a paradox, but we must not forget that the true and ultimate aim of medical science was not to cure the individual or individual ills, but to raise the standard of health for all and make life the rich and gracious thing nature intended it to be. The evil conditions which call for the exercise of so much skill in gynecologic and obstetric practice are the outcome and the expression of nature's resentment against the perverters of her wise and beneficent laws.

DR. E. W. LEE, Chicago, read a paper entitled "Vaginal Atresia."

The following officers were elected for the ensuing year:

President, Dr. A. C. Corr, Carlinville.

First Vice-President, Dr. J. M. G. Carter, Waukegan.

Second Vice-President, Dr. T. J. Pitner, Jacksonville.

Permanent Secretary, Dr. John B. Hamilton, Chicago.

Treasurer, Dr. G. N. Kreider, Springfield.

Judicial Council, Dr. J. L. White, Bloomington; Dr. E. P. Cook, Mendota, Dr. D. W. Graham, Chicago.

Chairman, Section One, Dr. Jas. B. Herrick, Chicago; secretary, Dr. J. O. De Courcy, St. Libory.

Chairman, Section Two, Dr. H. P. Newman, Chicago; Secretary, Dr. E. W. Weiss, Ottawa.

Chairman, Section Three, Dr. O. B. Will, Peoria; Secretary, Dr. R. C. Matheny, Springfield.

Committee of Arrangements, Dr. Charles F. Wilhelmj, East St. Louis; Dr. H. C. Fairbrother, East St. Louis; Dr. J. W. S. Dyer, East St. Louis; Dr. W. H. McLean, East St. Louis; Assistant Secretary, Dr. J. L. Wiggins, East St. Louis.

Committee on Medical Legislation, Dr. J. W. Pettit, Ottawa; Dr. D. W. Graham, Chicago; Dr. J. B. Maxwell, Mt. Carmel.

Necrology and Biography, Dr. J. H. Hollister, Chicago, Chairman; Dr. O. B. Will, Peoria; Dr. E. J. Brown, Decatur.

Medical Societies, Dr. C. W. Hall, Chairman, Kewanee; Dr. J. A. Baughman, Neoga; Dr. W. R. McKenzie, Chester.

Committee on Medical History consists of all members of forty years' standing.

Committee to act jointly with Missouri Medical Society, Dr. E. P. Cook, Mendota; Dr. Geo. N. Kreider, Springfield; Dr. L. C. Taylor, Springfield.

The next meeting will be held at East St. Louis, third Tuesday in May, 1897.

American Laryngological Association.

Annual Meeting held at Pittsburg, Pa., May 14, 15 and 16, 1896.

(*Concluded from page 1132.*)

THE CONTROL OF HEMORRHAGE IN SOME OPERATIONS IN THE NOSE AND THROAT.

DR. A. COOLIDGE, JR., Boston, states that the first consideration in undertaking an operation under an anesthetic is the position in which to place the patient. The horizontal position with the patient on the table is often contraindicated by the danger of blood finding its way into the pharynx and larynx. For operations confined to the nasal cavity this may often be prevented by plugging the posterior nares as a first step in the operation. The Rose position with the head hung perpendicularly over the end of the table, although preventing blood from entering the lower pharynx is, to most operators, awkward and unsatisfactory. The Trendelenburg position protects the trachea from blood in thyrotomy and operations deep in the pharynx. The most generally useful position for operating in the upper respiratory tract is with the patient held sitting in a chair opposite the operator. By inclining the body well forward blood from the naso-pharynx and mouth flows outward, but it is absolutely necessary in using this position that there should be sufficient assistance to control the patient. It is therefore much easier in the case of children than with adults.

For the local control of bleeding where the bleeding vessel can not be found, compression offers the best means; styptics are to be avoided if possible, as being unreliable, a loss of time and irritating.

Hemorrhage from the nasal cavity can usually be stopped by plugging through the anterior nares, and ability to do this easily and quickly will give the surgeon confidence in attacking this part of the body. Hemorrhage in the naso-pharynx is controlled by filling the cavity with gauze from below, by the same method as is employed for plugging the posterior nares.

The amount of bleeding to be expected in the removal of a new growth or hypertrophied tissue depends both upon the size and number of the vessels entering the tumor, and the amount of contraction allowed by the structure of the intravascular tissue, as is shown by sections cut at right angles to their attachments. Adenoid vegetations, tonsils and myxomata seldom give rise to troublesome bleeding, whereas sarcomata and fibromata attached to the basilar process sometimes bleed copiously and persistently. The readiest method of controlling the latter is by immediate plugging of the posterior nares after removal and packing at the same time through the anterior nares. In the removal of adenoid vegetations the Gottstein curette, although attended with more bleeding at first, causes less loss of blood than the longer operation with the forceps.

In removing the tonsils with the tonsillotome there is a brisk flow of blood at first which generally subsides quickly, although in adults it may cause serious loss of blood. This can in most cases be prevented by the use of cold wire, if the patient is under an anesthetic, or by the use of the hot wire with the help of cocain.

DR. F. I. KNIGHT gave a short résumé of the subject of

DYSPHONIA SPASTICA,

and reported a case of an intermittent form of the affection, a condition which he had never met before. The patient, a clergyman, would speak in a normal voice for half of his sermon and then, presumably being tired, lapse into the characteristic high-pitched, jerky voice of dysphonia spatica. At his interview with Dr. Knight he spoke throughout it in a normal voice. Dr. Knight said it was the first patient of the kind he had ever seen, who did not betray his affection during the interview.

A CASE OF UNUSUAL LARYNGEAL GROWTH.

DR. J. W. GLEITSMANN, New York, mentioned the case of a patient, a Russian Jew, a street merchant, aged 38, who had been hoarse for one year, but had had no emaciation, pain, cough or dyspnea. Examination of the throat showed nothing externally. No enlarged cervical glands could be detected. Internally the pharynx appeared healthy. There was in the larynx on the right side a large almost snow-white mass, extending horizontally the entire diameter of the larynx from the anterior commissure to the arytenoid cartilage. It appeared to be located between the true and false cord and looked exactly as if a bunch of cotton had been inserted all along the ventricle of Morgagni. The surface was slightly corrugated and its free border a little irregular. The rest of the larynx presented no anomaly worth mentioning. The movements of the right side of the larynx were practically unimpaired and adduction of the cords was perfect.

With Landgraf's double curette a piece of the growth was removed, with only slight bleeding and no unpleasant reaction. Unfortunately the fragment removed was not cut deeply enough to reveal the microscopic structure and in about two weeks a larger piece was excised. The report thereon was as follows: "Papilloma durum laryngis," probably malignant and perhaps carcinomatous. It is composed of proliferated papillary mucosa covered with a thickened epithelial layer. The surface layer of epithelia presents itself as a horny covering; the underlying epithelial cells show marked proliferation with a splitting up of the nuclei. The submucosa shows a small-celled infiltration in consequence of connective tissue proliferation. The epithelial layer shows a tendency to invasion of the subepithelial tissue as in carcinoma.

The glands at the margin of the growth appear very much changed. The individual tubules or ducts should appear distinctly separate one from another, instead of which the cylindrical epithelium appears at certain points to merge from one duct to another. After the second operation the patient refused further treatment and the case was lost sight of.

Dr. Gleitsmann observed that allusions to whitish-looking tumors of the larynx are very scarce in literature. Fraenkel ("On Cancer of the Larynx," 1889) states that it is erroneous to suppose that in its earlier stages cancer of the cords produces hyperemia or inflammation. On the contrary, the carcinoma often presents a surprisingly white appearance. Semon also has suggested that an unusually snow-white color or grass-like appearance in tumors points strongly to malignancy.

A remarkable case of fibro-chondroma of branchial origin or so-called supernumerary ear, removed from the throat of an infant at six weeks old by Dr. A. W. De Roaldes. The case reported by the author is the most unique, and only one of a similar nature is on record in this country.

THE SEQUELÆ OF SYPHILIS OF THE NOSE.

DR. CHAS. H. KNIGHT said that the diagnosis of late syphilis of the nose is often obscure. The notes of a case of intranasal

tumor, pronounced a sarcoma for which excision of the jaw was advised, were given as an example. The patient developed a tibial node which, together with the nasal tumor, disappeared under constitutional treatment. Reference was made to the characteristic symptoms of syphilis when limited to the soft parts and to its much more serious consequences when invading the cartilage or the bone. The fact that syphilis is responsible for a certain proportion but by no means for all perforations of the septal cartilage met with was mentioned. When the bone has been attacked, two problems have to be met: 1, When and how to remove diseased bone, and 2, how to remedy resulting deformity. The author advocates conservatism in dealing with sequestra, unless they are quite detached and accessible. In case dead bone is firmly attached or embedded, or its limitations can not be clearly defined, or if it be located high in the nasal cavity in the ethmoid region, it must be approached with great caution. Loose sequestra of large dimensions may be conveniently removed through a large incision. The external deformity resulting from loss of the cartilage is often not noticeable, that from destruction of the skeleton of the nose is frequently hideous. The discussion of the treatment of this condition was limited to a description of what is known as the Martin platinum bridge and its modification and of the methods of its insertion. Several cases were referred to more or less in detail. The method is believed to be an excellent one with certain precautions. It is especially important that the active stage of syphilis should have been long passed and that the patient should have had radical treatment. Great care should be taken in the construction and shaping of the platinum bridge to avoid friction and pressure, and finally the dissection of the soft parts must be so wide as to obviate tension after the bridge has been put in place. The paper concludes with a reference to the use of a simple plate of platinum slipped under the skin of the dorsum of the nose, the dissection in preparing a bed for the metal having been carried on through the nostril, a much simpler method and one which may prove to be equally effective in conditions of moderate deformity.

ACUTE DISEASES OF THE LINGUAL TONSIL.

DR. H. L. SWAIN, New Haven, Conn., said that if one was to judge by the amount written on this subject, it neither attracted or deserved much attention. If he has to judge by his own experience, which in the last three years had developed the fact that he must have overlooked many cases of acute trouble in this locality, the subject has been and was still being sadly neglected. In any case he had become convinced that acute lingual tonsillitis was often the cause of symptoms which were referred to other parts of the throat, simply because the latter were more frequently inflamed and more easily seen.

After some remarks on the anatomy of the parts, by which it was made evident that from the nature of the tissue and its surroundings acute inflammation would rarely assume the peritonsillar type, he went on to describe the symptoms of the various forms of acute lingual tonsillitis. He distinguished three varieties; the simple, the follicular, and the peritonsillar or phlegmonous. The symptoms were the same as in other acute diseases of the throat, modified by the difference in the locality affected. Especial stress was laid upon the cough, which is so often present in these troubles and persists long after the other symptoms subside. Very often one was led to blame the larynx in such cases when the lingual tonsil was at fault.

When the deeper tissues were affected, much severer symptoms arose, principal among which was the involvement of the epiglottis and glottis. In such cases life might become endangered and prompt and radical measures were necessary. Tracheotomy had to be sometimes performed.

In discussing the treatment he remarked, that in no acute throat trouble was there so evident and prompt effects produced by proper local treatment as in this. Repetition was necessary, but one uniformly had some reward for his labors. Anything that would reduce the swelling and inflammation was to the point. Glycerite of boro-glycerid applied to the parts and followed by a powder containing tannin and a small amount of morphia sulphate seemed to give as much relief as anything, to be assisted by frequent hot demulcent gargles. Systemic remedies were indicated in the same way as in other forms of tonsillitis. He closed the paper with a short history of a case of abscess of the lingual tonsil, which had slowly developed upon an attack of faucial tonsillitis. It had been ushered in by a short attack of edema of the glottis. The abscess had formed close to the ary-epiglottic fold and broke well back toward the arytenoid cartilage.

TREATMENT OF ACUTE LARYNGITIS AND BRONCHITIS.

DR. THOMAS HUBBARD, Toledo, called attention to the essential features of acute inflammation of the middle respiratory tract. Hyperemia of the bronchial membrane, with more or less swelling, produces a condensation of the cellular elements, since the same number of epithelial cells occupy smaller area in proportion as the caliber of the tube is lessened. This is one reason why it is so difficult to re-establish mucous flow, the outlets from the glands being closed. Retained mucous ferments become acrid and irritating whether within the substance of the membrane or in the tubes.

Inflammation of throat and glands is often gradually progressive. The larynx may be in stage of resolution and bronchi in first acute stage, and vice versa, the acute stage in the larynx being prolonged by constant reinfection from diseased throat foci. Treatment must be directed more in accordance with the condition.

The primary indication is to establish a free flow of mucous. Apomorphia in 1-30 gr. doses repeated every two to four hours is the best relaxing expectorant. Except in very severe cases and in debilitated subjects it is rarely necessary to follow with stimulating expectorants. Where relaxing expectorants are judiciously administered there is much less indication for opiates. All forms of abortive treatment are deprecated.

REPORT OF A CASE OF SQUAMOUS EPITHELIOMA OF VELUM PALATI CURED BY INJECTION OF CAUSTIC POTASH.

DR. THOMAS HUBBARD, Toledo, stated that for more than a year, the tumor, of flat tubular type, situated partly in velum and partly in anterior pillar of fauces on the right side, had resisted internal and local treatments at the hands of several practitioners and specialists. Cocain habit was established. In August, 1894, he was on the verge of collapse from malnutrition, his sole diet being milk and ice cream in limited quantity. Cocain habit was first cured and he improved somewhat, but nothing relieved the pain incident to deglutition. Injections of caustic potash by curved platinum needle, destroyed a conical shaped tumor mass. Lesser injections were repeated wherever proliferating epithelial growths were seen around the edges. Cicatrization was rapid and so was the improvement in general health. He gained forty pounds in two months. There are no signs of return now, nearly two years after first injection.

A CASE OF PERICHONDRITIS OF THE LEFT CRICO-ARYTENOID JOINT, FROM AN UNUSUAL CAUSE.

DR. H. S. BIRKETT, Montreal, referred to a young man who contracted gonorrhea and was attacked by inflammatory rheumatism during the course of this trouble affecting the left knee, ankle and left shoulder joints, and with the onset of this he developed a soreness and difficulty in swallowing, situated altogether at the left side of the throat. Upon examination the mucous membrane over the left crico-arytenoid joint was swollen and edematous. The ary-epiglottic fold on that side was not swollen. The vocal cords were white in color, and the movements of the left one, that of adduction and abduction, were decidedly slower than those of the right. Pressure over the affected joint outside was very painful. The voice was hoarse. The treatment consisted in constant applications of Leiter's ice coil which afforded the patient a great deal of relief. The condition was regarded as one of acute rheumatic affection occurring in the course of an ordinary gonorrheal rheumatism.

A paper on "Catarrhal Laryngitis," was read by Dr. C. C. Rice, of New York.

SELECTIONS.

A Method of Preventing Thirst after Celiotomy, with a Study of the Urine.—An abstract of a paper read before the Ohio State Medical Society during the late meeting at Columbus, by Dr. W. H. Humiston, of Cleveland. The patient is given the usual preparation for celiotomy, *i. e.*, diet, baths, cathartics, etc. For three days prior to the operation, the patient is required to drink a quantity of hot water not exceeding one pint an hour before each meal and on retiring, thus drinking about two quarts of water during each twenty-four hours, the last pint being taken three hours before the time appointed for operation. Particularly during the day previous to the operation while the patient is restricted to a limited amount of liquid nourishment, and the bowels are being unloaded, should the water be given. Thus is restored to the system the large loss of fluid occasioned by the free catharsis, with the satisfaction of having the patient pass the ordeal of the first thirty-six

hours succeeding the operation in comparative comfort, with no thirst, a moist tongue, an active renal function and a full, strong pulse. Also catheterization is rarely required. A tabulation of twenty-four successive cases in which a careful daily record of the urine was taken, gives the following results: The average total quantity of urine voided during the first twenty-four hours after admission to the hospital, was 29 fluid ounces, the average total solids amounting to 477 grains. During the twenty-four hours preceding the operation 30 ounces were passed containing 491 grains of total solids. The average quantity of urine voided during the first twenty-four hours succeeding the operation was 31.5 ounces, containing an average of 972 grains of total solids, and during the second twenty-four hours 25 ounces were passed with 680 grains. The doctor believes that the average total quantity of urine voided during the first twenty-four hours after admission is above that of the ordinary gynecologic case, but is explained by the fact at the first consultation he advises the use of at least an ordinary amount of water together with the administration of the ordinary diuretics, especially the potash salts and digitalis. Attention was called to the enormous increase in the amount of total solids eliminated during the first twenty-four hours after the operation over that of any preceding day.

Sanitary Burial.—The *British Medical Journal* reports the proceedings of a recent meeting of the Burial and Funeral Reform Association of London, at which papers were read by Sir Seymour Haden and Dr. Poore. "The former stated that for the last ten years he had been burying animals, large and small, in the park attached to his house. By digging them up and examining them at intervals varying from one to five years, he found that, buried at the depth of 4½ feet, the depth required by the Government for the burial of human bodies, an interval of from three to four years was necessary for complete resolution; buried at the depth of 1 foot, a year and a half had proved sufficient for the larger, and a year or less for the smaller animals. On the other hand, a body not buried at all, but simply laid upon the ground with a covering of earth a foot thick over it, had completely disappeared (the bones excepted) in a year, the mound of covering earth, which had been sufficient to prevent all smell, retaining its shape, but when it was pressed with the foot, proving to be hollow. The body had thus returned to the atmosphere in the shape of oxygen, hydrogen, carbon, and other perfectly harmless products necessary for the nourishment and growth of plants. He (Sir Seymour Haden) was amazed at the folly, not to say impiety, of any attempt to beat this provision of nature. Dr. Poore, in his paper, contended that if a body was buried in such a manner as to further in every way its complete dissolution, the land would be ready after due interval of time to receive a second body, and that if the cemetery were systematically and sufficiently planted, the earth would be purified and the air around freshened by the green leaves of a flourishing vegetation. The power which scientific burial gave of using the same ground repeatedly after due intervals of about ten years, abolished the fear which had been expressed with regard to the amount of ground allotted for burial purposes. An acre of land would prove an ample area for a burial ground in perpetuity for a population of 10,000 persons. Such a burial ground would prove a decided benefit to the living as supplying in the midst of human habitations a breathing place which is so essential to the general well-being."

Tic de Salaam.—Dr. Joseph Collins writing editorially for *Pediatrics*, says that he finds no reference to this form of epilepsy in any of the English text-books, either under the name at the head of this paragraph or under any other. The synonyms, chorea nutans, salaam convulsions and chorée salutatoire are almost solely to be found in continental books or journals. In respect of its occurrence in the field of American neurology, Dr. Collins says: "In the forms usually observed the disease is made up of a series of rapid, oscillating movements of the head and superior part of the body (spasmus salutans), which occur with a rapidity varying from ten to thirty times per minute. In some instances, during the height of the attack, the upper extremities are shot into the air, and for the moment remained fixed, while the eyeballs are rolled up, and the face has a fixed, non-expressive appearance. Whether or not consciousness is entirely lost during this period can not be said with certainty, first of all, because of the tender age of the patient, and secondly, because the rapid, fluctuating movements prevent the patient from answering or communicating. In marked contrast to the ordinary epileptic convulsions, whether they be of the 'petit mal' or 'grand mal' form, is the absence of any warning, and the rapidity with which the little sufferer regains his composure after an attack, that is, there seems to be none of the customary drowsiness, stupidity and desire to be left alone, as after an attack of epilepsy. Apparently there is no tendency to failure of mental development, or loss of what psychic faculties the child may have already obtained. The number of attacks with the patient may have in twenty-four hours varies from a dozen up to fifty or sixty, each attack lasting from one to three or four minutes. The phenomena have all the characteristics of a motor explosion or liberation of energy. Their occurrence is brusque, a rapid cessation between each twitch and an abrupt departure. The consensus of opinion of those who have seen most of this condition is, that the disease is a modification of the 'haut mal,' and the treatment which seems most serviceable is the treatment applicable to that form, namely, the persistent administration of bromid of potassium, with the occasional administration for a few weeks of minute doses of opium, while at the same time persistent attention is directed to the regulation of the alimentary and emunctory functions."

The Ultimate Effects of High Temperatures Upon the Blood and Tissues.—The *British Medical Journal* quotes from Werhowsky experiments upon rabbits. He used a large, well-ventilated thermostat of Lautenschlager, the body temperature of the animals being raised by increasing the temperature of the surrounding air, the experiments lasting from two to twenty-nine days. He found that when the temperature of the air reaches 37 C., the animals become at first restless, but later lie flat on their belly, respiration being quickened. After a few hours their temperature rises 2 or 3 C., but sinks again on the following day, and remains afterward at 39 to 40.5. If the temperature of the air is raised to 38.5 or 40, the body temperature rises to 41 or 42. After the second day the animals are quiet, and behave normally in all respects. The amount of urine is lessened, and albumin appears only toward the end of a long experiment. Of six animals, four died and two were killed on the fourteenth and twenty-seventh day of the experiment. Constant changes: 1, emaciation; 2, progressive diminution of amount of hemoglobin in the blood, by as much as 30 per cent. in a long experiment; 3, diminution of the total number of red corpuscles, but often not in the same proportion as the hemoglobin; 4, the only change in the red corpuscles is an increase of the small forms; 5, the white blood cells; there is an increase of the large single nucleated cells, and of the polynuclear pseudoeosinophile cells, and a diminution of the small single nucleated leucocytes; 6, corresponding to the decrease of hemoglobin, there is an enormous increase of hemosiderin in the medulla of bones and in the spleen; 7, no hemosiderin is found in the liver, unless death occurs early through great overheating; 8, the kidneys contain at most only a trace of iron; 9, the glands: (a) The liver cells are granular, sometimes vacuolated, and full of fat globules. It is questionable if this fatty degeneration can be produced by a short exposure to heat,

as, although present in an animal which died on the second day, whose temperature had been raised to 42 C., it appeared to be of older standing than this. (b) The kidneys remain unchanged for a long time by moderate temperature, but at last suffer from fatty degeneration mostly affecting the cells of the convoluted tubes. High temperatures cause a loss of the nucleochromatin and complete destruction of the nucleus. 10, the muscular cells of the heart undergo fatty degeneration later; 11, voluntary muscles and those of the intestine are always unaffected; 12, hemorrhages into the alveoli of the lungs were found in the animals which died, but the lungs of those killed were normal.

The Plague of Mice in Russia. Bacterial Experiments for Their Extermination.—The *Consular Reports* for April contain a long contribution on the above subject, collated from a number of Russian governmental sources. Southern Russia and Siberia have during the last three years been the scene of the rise and fall of a pest of mice. In some places the destruction of property by the rodents was a serious item in the sum total of the general misery of the peasant class. Regarding the bacteriologic work undertaken for the extermination of the animals, the reports from the laboratories are indicative of success but not conclusive; at all events the closing up of the plague seems to have been chiefly due to the spread of infectious disease among the mice, but whether this was caused by the bacillus typhi murium or in some other way, no positive statement is made. The Governor of Cherson includes the following in his report:

1. It was particularly noticed that field mice had multiplied and that the number of house mice had largely increased.

2. The warm winter had without doubt favored their propagation, but probably the main cause consisted in the large quantity of cereals which had remained all over the province, in the shape of thrashed grain as well as in stacks.

3. It is also certain that the mice increased on the spot, but, according to the observations of some landowners, the mice were noticed to move from east to west. This gives reason to believe that they immigrated from neighboring provinces and occupied the territory of the entire province.

4. The reports regarding the extraordinary increase of the mice date from the spring of 1894, but its commencement dates back to the autumn of 1893; of late, the mice perish from some disease which is not as yet defined, but to determine its nature certain measures have been taken by the Department of Agriculture. It is not possible to estimate the extent of damage caused by mice; all the more so, because they are accompanied by rats which not only devour grain and other produce, but even destroy village buildings.

5. Up to the present, the population have used various domestic remedies for the extermination of the mice, beside which, with the assistance of the rural administration, it was determined to poison the mice with Professor Loeffler's cultivations of typhi murium, as prepared by the Odessa bacteriologic station and the Cherson bacteriologic laboratory. This cultivation of typhi murium shows its effect upon the numbers of mice not sooner than three to four weeks after its use. In June, 1894, the Department of Agriculture sent to the Province of Cherson, Dr. Merezhkovski, the assistant of the manager of the bacteriologic laboratory of the department, to carry out experiments of exterminating the mice by means of the cultivation of the bacillus discovered by him. The experiments carried out by him in the agricultural school of the Cherson rural adminstration gave good results, and in October they were extended to the estate of G. L. Skadovski, a landowner, where they were superintended by a special committee; on the sixth day, the mice began to perish of the cultivation of Dr. Merezhkovski, and on the ninth day this attained considerable dimensions and the mice were reduced to their normal number. In April, 1895, the department sent out bouillon with the cultivation of Dr. Merezhkovski, but there are no reports as yet to hand concerning the results. The United States Consul at Odessa adds that when the army of mice swarmed over houses and huts through the country, the dogs and cats refused to molest them, and says "An incident which came under my own personal observation is not without interest. While I was waiting for a train at a small station on a branch line of the Southwestern Railway, a clergyman, with very long hair and beard, who was walking up and down the platform, stopped for a moment and raised the end of a canvas which served as a cover for a large quantity of wheat which was awaiting shipment. In an instant a mass of mice sprang at him and his beard, hair and cloak were literally alive with them. To brush them off was a matter of some time, and when my fellow traveler at length thought himself free, he was dismayed to find a mouse in each of his trouser pockets." Doubtless, all bacteriologists are familiar with the experiments of Loeffler, Lazare and Merezhkovski; but it may not be amiss to mention that, besides certain morphologic distinctions the differences between the bacillus typhi murium of Loeffler and the bacillus derived from mice by Merezhkovski consist mainly in this, that the mice die sooner when infected with Merezhkovski's bacillus than with that of Loeffler. Experiments with the infection of mice by means of Merezhkovski's bacillus were carried out by himself in his laboratory. As regards the bacillus typhi murium of Loeffler, besides the experiments of exterminating mice in the fields carried out by Loeffler himself in Greece, similar experiments were made by several Russian laboratories, among others, by that of the Odessa bacteriologic station in the provinces of Cherson and Podolia. These experiments were made in the fields and in the places where there was grain in stacks, and gave satisfactory results. These cultures of Loeffler's bacteria are customarily sent out in tubes of agar-agar, where they can retain their vitality during the course of several months. The contagium of typhi murium presents itself in the shape of a gray film on the slanting surface of the jelly in the testing tubes, For the purpose of using it, the film must be mixed with water in which pieces of white bread are soaked; the transparent remainder of the contents of the tube must be distributed, together with the pieces of bread, in the localities where the mice prevail. The details of this manipulation are as follows:

1. A 0.5 per cent. solution of table salt in water (one teaspoonful of salt is taken for five glasses of water) is prepared by boiling it for twenty minutes and subsequent cooling.

2. The testing tubes are filled with this water to one-half, the film is carefully scraped off by means of a little stick, and the liquid contents of the tube are poured out into the prepared solution; to five glasses of water, three testing tubes are taken.

3. In the liquid thus obtained, pieces of bread are soaked and distributed over the places indicated. The mixed contagion must be used immediately. Before using the cultures, it is indispensible to test their virulence on mice.

Mexican Criticism of Pullman Cars.—Forcible indeed are the denunciations of sleeping cars in the *Gaceta Médica de México* for May. The suffocating heat, the lack of ventilation and illumination, the unsanitary closets, are mentioned as if our Pullman sleepers, of which we Americans have been so proud, were utterly and entirely behind the times. It says that at least the improvements in new modern hotels should be introduced into them, air supplied incessantly and gradually, electric lights and strict sanitary arrangements in the closets, drinking water, &c. The precautions to be taken to prevent infection from disease are discussed also, and a radical reformation urged in many directions under the advice of experts.

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It would greatly facilitate the prompt delivery of the JOURNAL to those members of the ASSOCIATION living in large cities, if they would kindly furnish this office with their street address in those cases where it is omitted from the wrapper of their JOURNAL, as we have been notified by the postmasters of the larger cities that second-class mail matter not having street address, would be placed in the general delivery to await call.

SATURDAY, JUNE 13, 1896.

CARDIAC SURGERY.

The recent remarkable case of CAPPELEN seems sufficient excuse for directing attention to some details of cardiac surgery. In the first place it may be noted that wounds of the heart or pericardium are by no means inevitably fatal. Thus STEUDENER relates a case of a man who was shot through the heart and the bullet ranged backward through the spinal cord, causing paraplegia. Death occurred in fifteen weeks, evidently more from the latter cause than from the heart wound. In WEST'S case a man received a stab from a shoemaker's knife. After remaining in the hospital for a month he was discharged, and died from tuberculosis four years afterward. PROF. CONNER of Cincinnati, relates a case[1] of a boy, aged 15 years, who was shot from behind. Pneumonia, endocarditis and pericarditis developed, and after thirty-one days the patient was able to walk. A valvular lesion remained as a result of the endocarditis, and death occurred three years and two months afterward. These cases were confirmed at the necropsies.

Even more remarkable are the cases reported by MM. VELPEAU and BRUGNOLI. In the former's case a man of 50 came to the necropsy table with a history of having received a stab in the left breast from a table knife some nine years previous. At the examination scars were discovered both in the pericardium and in the right auricle, with adhesions between. BRUGNOLI records the case of a man who, after receiving a stab from a knife, was able to resume work in seventy-eight days, and lived for nineteen years. The necropsy disclosed an enlarged heart, an adherent and calcareous pericardium, and old scars in the right ventricle and septum, with a split mitral valve.

The heart is an organ that sometimes tolerates foreign bodies very well, and again a slight injury gives rise to a fatal issue. Among foreign bodies found in this organ besides bullets and needles, which are the most common, are splinters of wood, fish bones, etc. Even the ubiquitous hat pin has been discovered (LANGIER). Bullets have been found encapsulated in the heart for many years; in the right ventricle six years (LATOUR); in the wall of the ventricle for twenty years (BALCH); and for no less than fifty years in the pericardial sac. It must be observed in passing, however, that these cases refer to the old fashioned round balls; few conical balls will be stopped by the heart, and still fewer, if any, of the most recent projectiles of small caliber and extreme penetration.

The extent of the wound does not seem to bear any decided relation to the duration of life, for while STEINER'S experiments seem to prove that simple puncture by a needle is not very dangerous, yet several cases are on record of immediate death resulting from needle wounds, either accidental, homicidal or otherwise. Again, in the cases where recovery took place, as previously mentioned, the damage was much greater than any that could be inflicted by a needle. In BRUGNOLI'S case the mitral valve was implicated; in CONNER'S, one cusp of the aortic valve; yet the patients survived for years.

The causes of immediate death after heart injuries are two in number, nervous and mechanical. First, by interference with the ganglia presiding over the movements of the organ, and second, by the effusion of blood into the pericardial sac, thus compressing the organ and hindering its action. For the former complication surgery is of no avail. In the latter, however, it would seem that evacuation of the fluid or clotted blood might be followed in many cases by favorable results.

Although paracentesis of the pericardium was first proposed by RIOLAN over two centuries ago (1649), it was not until late in the present century that it was actually put into practice. ROBERTS reports over 40 per cent. of recoveries after paracentesis or incision, and bearing in mind the usually fatal ending of the affections requiring this operation, the figures are highly encouraging. Possibly these favorable results have encouraged surgeons to advocate suturing bullet and stab wounds of the pericardium and heart. PARK, of Buffalo, we believe, is the latest of these.

It has remained for CAPPELEN to put this sugges-

[1] Cincinnati Clinic X, p. 253.

tion into practice. The patient was a man of 24, who had received a stab from a knife some hours before admission. On entrance he was unconscious, no pulse could be felt, the heart sounds could be heard, but no impulse was perceptible. The wound was punctured, not bleeding, one centimeter long, and situated in the left fourth space, parallel with the rib. After an injection of camphor the patient began to breathe and the pulse could be felt. The left side of the chest did not move. Under chloroform the wound was enlarged, and the fourth rib was resected. The left lung was compressed by an accumulation of blood in the pleural cavity, partly fluid, partly clotted. After this was evacuated the lung expanded and was found to be not wounded. The third rib was now resected and a wound which was bleeding freely, was found in the pericardium, one centimeter long. The pericardial sac was found to be filled with coagulated blood, and after enlarging the wound in the pericardium, another one measuring one centimeter in length was found in the left ventricle, which caused the hemorrhage. This wound was sutured and an artery tied, when the bleeding ceased. The account of the operation states that the suturing was rendered extremely difficult by the rhythmic movements of the lung, which covered the field of operating and obscured it, and by the contractions of the heart, which however were quiet and regular. The suturing was accomplished by bringing the needle half way through during a contraction, then dropping it, and after a second contraction bringing it completely through. After the operation the patient's pulse was very rapid and feeble, but improved after saline injection. The patient sank gradually and died two and one-half days later. The necropsy showed a wound of one of the large branches of the coronary artery; the wound had healed partially, but there was a beginning pericarditis and various bacteria in the exudate. While death ensued, yet the fact that the patient lived for over two days, and that no operative measures could be instituted for some hours, shows that in more favorable cases recovery will follow.

FISCHER'S statistics[2] prove that the most important parts of the heart functionally, the ventricles, are much more liable to wounds than the auricles, 257 wounds of the ventricles against only 31 of the auricles, a result which might be expected from the smaller size and less exposed position of the latter. Again, the great urgency of similar operations may preclude as thorough aseptic precautions as those in other measures of less expediency. However, in view of the foregoing facts the opinion seems warranted, that "the citadel of life" itself will no longer be exempt from the incursions of the surgeons.

[2] Ueber die Wunden des Herzens und des Herzbeutels, Langenbeck's Archiv, IX, p. 571.

[3] Norsk Magazine for Lægevideuskaben, March, 1896, British Medical Journal, May 23, 1896.

HOSPITAL PRACTICE REQUIREMENT FOR ARMY MEDICAL SERVICE.

The progress of medical education keeps pace with that of modern medicine and surgery. As the fields of knowledge become extended, the necessity for a change in educational methods from the lectures and text books of the past to the laboratory work and practical teachings of the present, was recognized by our leading colleges. One after another of these institutions are extending their courses, increasing their years of study, and providing educational facilities that their graduates may be equipped satisfactorily at the outset of their professional career.

The Medical Department of the Army since its organization during the War of the Revolution has filled its ranks by selection of the fittest. A board of medical officers selects its approved candidates from those who come forward for examination. The members of this board, jealous of the good repute of their corps, allow admission to none whose professional attainments are not such as to promise a satisfactory future record. This has given the army medical officer in the past an unquestioned professional standing; and it is the evident intention of the present administration of the Medical Department that this status shall be preserved. Immediately after his appointment as Chief of his Corps, SURGEON GENERAL STERNBERG established an Army Medical School in which those who had just entered the service received special instruction in military medicine, surgery and hygiene, and particularly in practical laboratory work. The facilities of this school were available also for such officers of older date as were able to take advantage of them. At the same time he provided opportunities for professional improvement to those officers who had been isolated at frontier or interior posts far from medical centers. He gave them in rotation, as they neared the period of their examination for promotion, temporary assignments to duty as attending surgeons in cities where they could attend society meetings and lectures, observe the practice in large hospitals and study specialities in which they were interested. Lastly, in a new edition of a circular of information to candidates who desire to enter the service he has taken a step which will raise the standard of medical qualifications considerably. Former issues of this circular stated that hospital practice in medicine, surgery and obstetrics was important; but the present issue announces this hospital practice as essential. The candidate must submit the evidence to the board that he has had a year's hospital practice. Hospital clinics and dispensary practice embraced in the college curriculum do not satisfy the new requirements. The candidate must have been a resident or interne of a hospital for one year.

It follows that the practical result of the new re-

quirement will be to impose upon candidates a year of hospital experience or of practice equivalent to this, in fact a year of special preparation for the ordeal of the examination. This will bring forward a higher grade of candidate than formerly. The number of candidates and the percentage of unsuccessful candidates may be lessened, but the spirit of competition will be intensified and the Department will get the best men. That no intending candidate may be excluded from examination on account of age in consequence of the extra year of preparation the maximum limit of age at entrance has been raised from twenty-eight to twenty-nine years.

THE RELATIONS OF THE SEXUAL ORGANS TO THE DEVELOPMENT.

The apparent connection between the conditions of the sexual organs and growth in certain directions, are facts of common observation, but certain of them are taken up and treated rather suggestively by M. HENRY MEIGE in a recent issue of the *Journal des Connaissances Médicales*. He had already studied certain phases of these phenomena in a previous memoir on "Infantilisme et Féminisme," in which he pointed out that a certain degree of skeletal malformation was of frequent occurrence with the characteristic corporeal habit associated with congenital atrophy of the genital organs. Here, however, he calls attention to the more pronounced abnormalities that are sometimes observed, the frequent immature stature and the occasional giantism. Even in those who have been purposely or accidentally emasculated these are observed, as in the case of the Egyptian eunuchs observed by LORTET, in whom the excessive stature was due to the length of the legs, the thorax and trunk generally not exceeding the usual normal size. This corresponds with what is seen in the ox as compared with the normal bull, and M. MEIGE suggests as an explanation that the loss or atrophy of the sexual organs entrains the atrophy of the corresponding spinal cells, and the vascular supply of the cord being undiminished, the other nerve centers in the same region controlling the nutrition of the extremities are unduly benefited, with the result of the excessive development observed. For the changes occurring elsewhere in the body, somewhat similar but more general explanations are supposable, if one wishes to go farther into the domain of hypothesis.

The diseases of the sexual organs may also act in these directions, as well as the defects of development or the mutilations. M. MEIGE quotes in this connection a recent observation of SACCHI (*Rivista Sperimentale*, 1895) of an excessively developed boy of nine and a half years, with beard, male voice, precocious intelligence and disposition, pronounced sexual appetite, etc. The left testicle was enormously developed, 10 centimeters in diameter, and the right testicle atrophied. Orchidectomy was performed on the left side and an epithelial parasitic growth discovered. Within a month a change began to be observed; the hairy growth of the face and elsewhere began to disappear, the voice became childish, the abnormal sexual precocity was lost, the intelligence and muscular strength diminished, the right testicle increased in size and the individual became in all respects more like a normal boy of his age.

According to SACCHI, this infantile giantism is to be accounted for by an abnormal influence of the parasitically excited testicle (probably through an increased secretion) on the general growth of the organism. However this may be, the observation is a very remarkable one and shows almost like an experimental demonstration the relations of the sexual organs to the general and special development. M. MEIGE further refers to the notable but irregular changes that are often observed to occur at puberty, causing what might sometimes be called a transitory acromegaly of the pubescent epoch. Development, which is as a rule excessive at this period, may be of certain portions more than others in a most surprising way and proceed, as it were, by jerks in different organs in succession. These phenomena are unnoticed because they are so common, but they have an important physiologic suggestiveness and significance, and are therefore more worthy of careful study than seems to be generally appreciated. The possibilities of experimental investigation in this direction are, moreover, not exhausted; there is an extensive field still open for research.

The pathologic side of the subject is also worthy of careful study. The various conditions of imperfect sexual development probably have a serious reaction on the vitality of the system as a whole, and make it the easier victim of noxious germs. A relation between infantilism and tuberculosis has already been suggested and supported by considerable clinical evidence.

Nowadays, when so much blind work is done in the way of extirpating important sexual organs on theoretic and probably often insufficient grounds, the necessity of a careful and thorough study of their relations to growth and general vitality is or should be apparent.

THE CHEMIST A PROFESSIONAL MAN.

Although the study of chemistry is the study of a science, yet the supreme court of the United States holds that a chemist who occupies himself in the practical use of chemistry, as his services may be demanded, may certainly, at this time, be fairly regarded as in the practice of a profession. He is none the less a chemist, and none the less occupied in the practice of his profession because he limits himself to a particular branch of chemistry, as, for

example, that which is to be applied in the course of the scientific manufacture of sugar, any more than a lawyer would cease to practice his profession by limiting himself to any particular branch thereof, or a doctor by confining his practice to some specialty which he particularly favored and was eminent in. Neither does the fact that he has agreed to sell his time, labor and skill to one employer and in one prescribed branch of the science, in the least militate against his being a professional chemist, nor does it operate as a bar to the claim that while so employed he is nevertheless practicing a recognized profession. It is not necessary that he should offer his services to the public at large, nor that he should hold himself ready to apply his scientific knowledge and skill to the business of all persons who applied for them before he would be entitled to claim that he belonged to and was actually practicing such profession. He may confine his services to one employer so long as the services which he performs are of a professional nature. Such are the views expressed by the above court in the case of United States v. Laws, May 18, 1896, where it specifically decides that a contract made with an alien in a foreign country to come to this country as a chemist on a sugar plantation in Louisiana, in pursuance of which contract such alien does come to this country, and is employed on a sugar plantation in Louisiana, and his expenses paid by the party with whom he made such contract, is not a contract to perform labor or service as prohibited by the contract labor law, which excepts persons who practice a recognized profession.

CORRESPONDENCE.

Treatment of Typhoid Fever.

MONTCLAIR, N. J., June 2, 1896.

To the Editor:—I have just read with great interest two able addresses in your issue of May 23, one from the pen of Professor Osler, and the other from that of Professor Quine, both delivered at the recent meeting of the AMERICAN MEDICAL ASSOCIATION. Both of these gentlemen pay their respects to the Woodbridge treatment of typhoid fever, and both seem inclined to sneer at the so-called pretensions of the advocates of this treatment. Dr. Woodbridge has fought out his own battle with great pluck and pertinacity, and if there be any virtue in his plan of treatment, every practitioner in America who reads the journals or attends the meetings of a live medical society, is sure to hear of it. He does not, therefore, need any defense nor even aid from me. But if one can read between the lines, both the eminent writers and teachers spoken of above are preparing to let themselves down easy, and adopt an antiseptic treatment of typhoid in selected cases. It may not be necessary to give the Woodbridge tablets in the prescribed Nos. 1, 2 and 3 order, nor may it be wise to allow solid food on the tenth day, nor to encourage the patient to resume his ordinary avocation as soon as that. But I believe that the antiseptic treatment of typhoid is superior to all others, including the Brandt treatment, and I believe, further, that so honest a gentleman and so thorough a student as Professor Osler will acknowledge that typhoid fever can be aborted just as soon as he begins to use calomel or other mercurial in small frequently repeated, or large occasional doses in the beginning of the fever, and follows it up by some of the antiseptics that Dr. Woodbridge recommends, or by the chlorin water so strenuously advocated by Burney Yeo.

In all the discussions which I have recently seen of typhoid and its treatment, it has seemed very odd to me that I have never noticed any allusion to the classic paper on the subject by Dr. John Harley in Reynolds' System of Medicine. If any one will read that paper with an open mind, I am inclined to think that he will at least be persuaded to try mercurials in typhoid. It is not that the one-tenth of a grain of calomel every fifteen minutes will so saturate the economy that it will poison all the microbes which may be lodged anywhere inside the integument, but such a course of medication will assuredly set in motion the flow of bile, nature's intestinal antiseptic. And right here I would like to ask those who say that calomel is not a cholagogue, why it is that a five or ten grain dose of this powder, which is so bland locally, will cause alvine dejections which are so hot and acrid that they will excoriate the perineal integument? I know from long personal professional experience that the above phenomena will follow the exhibition of calomel, and the hot and acrid substance I have always called bile. Whether it is really bile or not, it would seem to be injurious to microbes. However, I believe that the physiologists now assure us that it is bile.

And this leads me to observe that a person who speaks of minute doses of calomel given every quarter or every half hour as harmless (as some one has done in one or both of the papers which have called forth these remarks), shows a deplorable lack of knowledge of the action of this drug. Two grains of calomel divided into twenty doses and one of these doses given every half hour, has "touched" the gums of a well developed man more than once in my practice. In Dr. Woodbridge's reports repeated instances are given in which sore mouth was produced by his No. 1 tablets. And a mild degree of stomatitis is just what Dr. John Harley recommends in the early treatment of typhoid. He also says (pp. 4, 8, Vol. I, Reynolds' Syst.): "If at an early period we succeed in producing a flow of healthy bile, with moderate action of the bowels, we may arrest further progress of the disease and restore the appetite." It is true that Dr. Harley objects to calomel, preferring some other mercurial per os or inunctions of blue ointment. But it is not probable that any one in those days thought of giving calomel in the minute doses which we now use with such good effect. Had the discovery of the typhoid bacillus by Eberth been known when Dr. Harley's paper was written, his pathology of the disease would have been different, but his history and treatment might have stood just as they are now.

Now, Mr. Editor, I have not written these lines from any reason except that I am just as anxious that the truth about the treatment of typhoid should be known to the entire world, as Professor Osler, Dr. Quine and Dr. Woodbridge are. And I believe that Dr. Woodbridge has the right theory of treatment. The details may be altered, as Dr. Quine suggests, and quite likely will be.

So far as the cold bath treatment goes, it has too many and too distinguished advocates, including particulary Professor Osler, for any one to sneer at it or pass it lightly by. Still, my conviction—and I maintain that having studied the disease sufficiently to have settled convictions in reference to it entitles me to be heard—agrees with Professor Yeo, who says (*Amer. Jour. Med. Sci.*, June, 1894, p. 651): "With regard to the routine cold bath treatment of typhoid, for my own part, I am disposed to leave it, almost without comment, to those who like it. . . . . The method that I advocate has yielded in my own practice and in that of others better results, and I therefore prefer it." Very respectfullly yours,

RICHARD C. NEWTON, M.D.

Our Mexican Confreres.

NEW YORK, June 2, 1896.

To the Editor:—In common with every reputable medical man in this country, I can only regret that Dr. David Cerna has felt it incumbent upon him, in your issue of May 30, to reply to certain unfounded reflections upon the medical profession of Mexico. Statements, such as those he seeks to confute, might better have been left unnoticed, the very refutation giving them an undeserved publicity. The creditable appearance of the Mexican members of the First Pan-American Medical Congress, convened at Washington in September, 1893, their dignified demeanor, the admirable papers they contributed to the transactions, their intelligent participation in the discussions in the several sections, and their interested and zealous attention to their duties as committeemen, etc., were matters of commendatory comment by their colleagues in the Congress from other American nationalities, who were appointed with them for the first time. To the members of the American Public Health Association, which is proud of displaying the triple escutcheons of the United States, the Dominion of Canada and La Republica de México, they have long been known as among the ablest and most progressive of their associates. Their names appear on every one of its important committees. Each State in Mexico and the Federal District have their representatives on the Advisory Council, with the States of our own Union and the Provinces of Canada. More significant than all, Dr. Eduardo Licéaga, President of the Superior Council of Health of the Mexican Republic, has been unanimously elected President of the American Public Health Association for the year 1896 and will conduct its proceedings at the approaching annual meeting at Buffalo, N. Y., September 15 to 18.

I have, however, no intention of entering upon the defense of a country which is known in international medical assemblies the world over through the professional achievements of Carmona y Valle, Rafael Lavista and Eduardo Licéaga, and which has swelled the ranks of the noble brotherhood of medicine with such men as Domingo Orvananos, Francisco Marin, the Arellano brothers, J. E. Moujáras, Luis Ruiz, Angel Gavino, Martinez del Campo, Gomes, Garcia, Macouzet, the eloquent Gregorio Mendizabel, and hosts of others who exemplified the typical physician. When the United States of America shall be able to boast of a National Board of Health as ably administered as the *Consejo Superior de Salubridad* of the Republic of Mexico, it will realize what Mexico has done for medicine, and what medicine is doing for Mexico.

ALBERT S. GIHON,
Medical Director United States Navy (retired).
8 West 127th Street.

PUBLIC HEALTH.

Population of Paris.—*Le Journal Officiel* announces that the census of March 29 records a total population of 2,511,955, a gain of 87,250 inhabitants since the last census of 1891, five years ago, an annual increase of 17,450.

Financial Distress Through Neglect of Vaccination.—The prevalence of smallpox at Gloucester has caused great financial distress, all outside trade having been brought to a standstill. Nevertheless the antivaccinist minority continue to hold public meetings and attribute the outbreak to one cause after another, to everything except the right cause—the neglect of vaccination.

Alcoholism in Belgium.—The Academie de Médecine de Belgique announces that it considers alcohol the most formidable pathogenic agent of modern civilization, while the facilities for procuring it are greater in Belgium than in any other country. It has recently passed resolutions urging the legislature to wage a merciless war against this mortal enemy of society, as a measure was under discussion that would have increased the number of distilleries.

A Use for Patent Medicine Literature.—It is a favorite axiom of the optimists that everything has its uses. But it has remained for the New Mexico Territorial Board of Health to find a use for the patent medicine almanac. In a recently issued circular on the prevention of consumption, among other things, it is advised that "every person so affected should spit into some receptacle and should see that the sputum is soon destroyed by fire. About the house there is no better way than to spit between the leaves of patent medicine almanacs—to be had freely at all drug stores—and after a half dozen or more spittings burn the book."

The Horse Sickness of South Africa.—Another hindrance to British land-pillage has been the "horse sickness" of South Africa, concerning which the following information is given in the current issue of the *Press and Circular:* "This disease, which is one of the chief obstacles to the development (seizure) of large tracts of South Central Africa has been the subject of close bacteriologic investigation by Dr. Erdington, the Director of the Bacteriological Institute at Cape Town. He has had no difficulty in identifying the mycelium which causes the disease, but great difficulty in growing it, as it failed to develop in any of the usual media for bacillus cultivation. He has, however, found, strange to say, that the natural gum which exudes from the wild mimosa, growing in the district, is laden with the mycelia, which seem to thrive and propagate on it, and his conclusion at present is that the only effectual remedy for the disease is to destroy the mimosæ. There is an analogy for this in a sort of 'rust' that has been found to have its *habitat* on the leaf of the barberry tree, which affects corn, and which has been got rid of by destroying those trees wherever the 'rust' has appeared."

Scarlet Fever at the Paris Hospital des Enfants Malades.—Out of 239 cases received during 1895, there were fourteen deaths, half of which occurred almost immediately after arrival. The age averaged from 3 to 9, and the cases were less severe as the age increased. The disease was most prevalent in spring and summer; the complications were most frequent in autumn, with most fatalities in the winter. Forty-three per cent. were followed by complications: Otitis, suppurating glands, albuminuria, bronchopneumonia, secondary angina, etc., ascribed in large measure to the defectiveness of the hospital. The treatment was limited to a strictly milk diet, the daily administration of one to two grams of acetate of ammonium during the eruption, washing out the mouth with aromatic boiled water and injecting mentholized oil into the nasal cavities. Thirty-two cases were treated with 20 c.c. of Roux's serum, from suspicion of diphtheria in their angina with streptococcus albus. An eruption resembling measles followed two weeks later, confirming Sevestre's statement that this transient eruption is liable to follow the use of the serum in angina with streptococci.—*Gazette Médicale de Paris*, May 16.

Disinfection of Apartments.—There is apparently room for great improvement in the processes and agents for the disinfection of rooms after contagious diseases. In some recent experiments by the health department of one of the largest American cities, where it might be supposed disinfection had been reduced to a science, it was found that cultures of the potato bacillus, B. mesenterica, exposed in apartments undergoing sulphur dioxid fumigation, were growing vigorously when returned to the laboratory. Dr. Miguel has made a series of experiments on this subject, the reports of which are published in *L'Annales de Micrographie*, and from which it appears that the commonly used disinfectants, such as phenol, thymol, sulphurous acid and naphthalene, are either ineffectual or very expensive. Carbolic acid, for instance, is about as active as alcohol

or brandy, and less so than vinegar. The vapors of acetic acid are very active, but too expensive for ordinary use. Essential oils appear to be about as active as phenol. Concentrated aldehyde, in 1 to 2 per cent. solutions, should be used, exposed in shallow dishes and allowed to disengage their vapor slowly for several days. Another plan recommended is to burn methyl alcohol slowly in lamps surrounded with platinum gauze. Very penetrating vapors of aldehyde are disengaged, which do not alter metals or the colors of textile fabrics, while acting efficiently as a disinfectant.

To Prevent Adulteration of Food and Drugs in California.—A law was passed in California in 1895 that no person shall, within that State, manufacture for sale, offer for sale or sell any drug or article of food which is adulterated. The term "drug" is to include all medicines for internal or external use, antiseptics, disinfectants and cosmetics. The term "food," as used, is to include all articles used for food or drink by man, whether simple, mixed or compound. Any article shall be deemed to be adulterated, in the case of drugs: 1, if, when sold under or by a name recognized in the United States Pharmacopeia, it differs from the standard of strength, quality or purity laid down therein; 2, if, when sold under or by a name not recognized the United States Pharmacopeia, but which is found in some other pharmacopeia or other standard work on materia medica, it differs materially from the standard of strength, quality or purity laid down in such work; 3, if its strength, quality or purity falls below the professed standard under which it is sold. Every person manufacturing, exposing or offering for sale, or delivering to a purchaser, any drug or article of food included in the provisions of this act, shall furnish to any person interested or demanding the same, who shall apply to him for the purpose, and shall tender him the value of the same, a sample sufficient for the analysis of any such drug or article of food which is in his possession. Whoever refuses to comply, upon demand, with this last requirement, or whoever violates any of the other provisions of this act, shall be fined not exceeding $100, nor less than $25, or imprisoned not exceeding 100 days nor less than 30 days, or both; and, in addition, any person found guilty of manufacturing, selling or offering for sale such adulterated food or drugs, shall be adjudged to pay all the necessary costs and expenses incurred in inspecting and analyzing such adulterated articles.

Poisoning by Plumbo-solvent Water-supplies.—A special report to the Local Government Board of Great Britain, made by Inspector W. H. Power, gives the results of an important original investigation concerning the effects of "moorland waters," in respect of their plumbo-solvent ability. The *Glasgow Sanitary Journal* for March gives an analysis of the report, holding it up as a brilliant example of modern scientific research, comprehensive, detailed, patient. The results, so far as the scrupulous accuracy of science will allow them to be stated, go on the whole to confirm the microbe theory of lead solution. The investigation is not yet ended; but the chief propositions are these: 1. The lead-dissolving property of moorland waters is associated with acidity. "Moorland waters that are acid invariably possess ability to dissolve lead. At the same time they may, or may not, erode this metal. Many moorland waters which dissolve lead to a considerable extent possess, in regard of this metal, no conspicuous erosive power. Other moorland waters both dissolve and erode lead in a very decided fashion. Moorland peat waters are all, it would seem, not far removed from possession of one or the other property, or of both properties." 2. "There was indication also of close relation between amount of acidity and vigor of solvent action on lead." But the correlation does not amount to complete parallelism. "Different waters of equal acidity did not necessarily possess equal power of dissolving lead." 3. In certain circumstances moorland waters are found to increase in acidity, and therefore in lead-dissolving potency. This is true of waters on peat soil. 4. Peat soil, from various gathering grounds, was "found to be, when moist, invariably acid." 5. When divorced from the peat, the moorland waters did not increase in acidity. 6. When "sterile (neutral) peat-essence" was added to "freshly-collected samples of acid moorland water," the result was bacterial growth and, in most cases, acid reaction in the peat-essence. 7. When the acid water was added to the peat-essence (sterile and neutral), the result was bacterial growth and, in most cases, acid reaction in the peat-essence. 8. Thus the water must have contained bacteria that, by acting on some substance in the peat, were capable of increasing the acidity of the mixture. 9. These bacteria are derived from the peat. 10. "To separate samples of distilled water that was neutral in its reaction and which did not dissolve lead there were added small amounts in each instance of moist peat soil from different selected gathering grounds. As a result every sample of distilled water developed in a short while acid reaction and was found to have acquired ability to dissolve lead." 11. To separate samples of sterile peat decoction which did not dissolve lead there were added minute amounts in each instance of moist peat soil from different gathering grounds. As a result the samples of peat decoction always developed bacterial growth, and at the same time were usually found to possess acid reaction and ability to dissolve lead." 12. Of the microbes discovered in the above peat decoctions only two, named provisionally "O" and "Q," were found to make sterile peat decoction acid, and to confer on it the ability to dissolve lead. 13. Lastly, "moist peat soil from a variety of gathering grounds" yielded "two microbes identical with 'O' and 'Q' which, when inoculated into sterile peat decoction, multiplied therein with considerable vigor, produced in the medium acid reaction, and conferred on it ability to dissolve lead." These brilliant results will now be applied to the vast areas selected. The distribution of lead poisoning will be checked and verified. Doubtless many peculiarities, otherwise unexplained, will now fall into their place as natural deductions from the life history of these microbes. And thus, surely a sufficiently startling conclusion, lead poisoning by moorland waters almost leaps into the circle of infectious diseases!

Health Reports.—The following health reports have been received in the office of the Supervising Surgeon-General, U. S. Marine-Hospital Service:

SMALLPOX (UNITED STATES).

Louisiana: New Orleans, May 23 to 30. 17 cases, 5 deaths.
Ohio: Dayton, May 28 to June 4, 1 case, 1 death.
Washington: Seattle, April 23, 1 case.

SMALLPOX (FOREIGN).

Alexandria, April 30 to May 6, 4 deaths.
Barcelona, April 1 to 31, 57 deaths.
Birmingham, May 16 to 23, 1 case.
Bristol, May 16 to 23, 1 death.
Buda Pesth, May 13 to 20, 3 cases.
Cairo, April 30 to May 6, 4 deaths.
Calcutta, April 18 to 25, 4 deaths.
Cardiff, May 16 to 23, 1 case.
Dublin, May 16 to 23, 1 death.
Gibraltar, May 10 to 24, 1 case.
Lecata, May 9 to 16, 2 deaths.
Madras, April 25 to May 1, 2 deaths.
Madrid, May 12 to 19, 18 deaths.
Montevideo, April 25 to May 2, 2 cases.
Naples, May 16 to 23, 3, cases, 1 death.
Odessa, May 9 to 16, 11 cases, 3 deaths.
Prague, May 9 to 16, 5 cases.
Riga, March 1 to 31, 1 death.
Rio de Janeiro, May 2 to 9, 1 death.
Singapore, March 1 to 31, 1 death.
Southampton, May 16 to 23, 1 case.
St. Petersburg, May 2 to 16, 46 cases, 7 deaths.
Swansea, May 9 to 16, 1 case, 1 death.
Tuxpan, May 9 to 16, 5 deaths.

CHOLERA.

Egypt: Alexandria, April 30 to May 6, 20 deaths.
India: Calcutta, April 18 to 25, 274 deaths; Singapore, March 1 to 31, 4 deaths.

YELLOW FEVER.

Cuba: Havana, May 21 to 28, 13 cases, 7 deaths; Santiago, May 16 to 23, 2 deaths; Sagua la Grande, May 16 to 23, yellow fever on increase among the troops but number of cases not given.
Brazil: Rio de Janeiro, May 2 to 9, 38 deaths.
Mexico: Vera Cruz, May 21 to 28, 5 cases.

SOCIETY NEWS.

Michigan State Medical Society.—The thirty-first annual meeting was held at Mt. Clemens, June 4 and 5. It disposed of eighty-four papers, though its sections held two business sessions and "broke bread together" at a banquet.

This simple statement makes it evident that no time or energy was left for useless or demoralizing contests. The Society began its work at eight o'clock, and pursued it continuously during the entire period of two days and one night, except from three till eight of the second morning which was yielded to sleep, and the time consumed in regular meals.

In brief the program was as follows: General session from eight till lunch; section work from lunch till dinner; session for annual addresses from dinner till nine; exhibition of X rays in their medical aspects from nine till ten; banquet from ten till three; sleep from three till breakfast; section work from breakfast till eleven; general session from eleven till lunch; closing section work from two till five.

The general sessions received and acted upon the reports of officers and committees, elected officers, discussed questions of general interest, and transacted all other business.

The Society received into membership a graduate of an eclectic medical college who had renounced his exclusive dogma and followed the practice of physicians. The Society last year took into its membership a graduate of a homeopathic medical college who had likewise renounced his exclusive dogma, and practiced as a physician. Thus the Michigan State Medical Society is on record as receiving into its fellowship physicians who have received all their medical college training at sectarian colleges. Hence, all graduates of homeopathic and eclectic medical colleges are eligible to membership in the Michigan State Medical Society, if only it is shown that they are legally qualified to practice medicine within the State, and are regarded by the physicians who know them best as being competent for their professional work, and honorable in their relations to the laity and the profession.

It is to be noted that this action of the Society was taken after a committee appointed for this purpose reported that its present constitution, by-laws and the Code of Ethics of the AMERICAN MEDICAL ASSOCIATION, fully supported this view of membership qualifications.

DR. C. HENRI LEONARD, of Detroit, was chairman of that committee, and his extended report may interest such as have held other views respecting the qualifications for membership in regular medical societies. It is another practical indication of "drifting" of the medical profession away from tenets held in the past.

Another point of general interest, was the result of an effort to abolish the sections of the Society, and have all the scientific work done in general session. Not a vote was recorded in favor of such a retrograde movement. Having found a better way than the old "convention" medical society, the profession of Michigan unanimously refused to depart from it. The matter was fully discussed, both at this meeting and on former occasions. In fact the transformation of this Society under the pacific influences of sectional scientific meetings has been little less than marvelous. Its transactions have developed from a little pamphlet which few noticed, to a large and handsome volume which no student of scientific medicine can afford to pass unstudied. The members have their differences, as of old; there are still cliques, politicians, pure and simple; there are "points of order" men, the vain glorious just as of old, but under the new system by which scientific work, rather than the arts of the medical politician and demagogue, bring honor and glory and profit, these are really being transformed and contribute much to the common profit. No longer is it possible to array one faction against another, and by hard words and harder deeds bring discomfort and distress to the non-participants.

The multiplication of sections multiplies officers, so that the office-holding ambition of the members has many times the opportunity for gratification. Then among the officers of the several sections there is a friendly rivalry in the securing of the best papers and discussions, and the accomplishment of the largest amount of section work. Members finding their papers discussed by the peers prepare them more thoroughly, so they can withstand the finest criticisms. No physician can attend these meetings and not feel adequately repaid in the accumulation of knowledge which will make him better able to do his work, and so earn more and better fees. All this is simple practical sense, and unquestionably increases the business of the members, and enhances the esteem in which the laity hold the profession.

A committee was appointed to consider the scheme of establishing a club house for the profession of Michigan in Detroit, of which matter more will be said later. The matter of a medical journal for the Society in lieu of its volume of transactions was presented for consideration.

The general addresses were especially happy in their selection of subjects, and treatment of the same. These addresses are designed to form a connecting link between the Society and the people of the town in which the meetings are held, in short, to be semi-popular. This year DR. H. M. KING, of Grand Rapids, discussed "Physical Diagnosis and Modern Therapeutics"; DR. VICTOR C. VAUGHAN "William Beaumont and his Work"; DR. C. H. BAKER, of Bay City, "The Doctor and his Hobby Horse"; DR. REUBEN PETERSON, of Grand Rapids, "The Prevention of Pelvic Disease." All of these were brief, to the point and very interesting.

Of the work in the several sections, it is enough to say that the papers were of varying degrees of scholarship and practical worth, but the average was quite equal to the Society's standard. The discussions were numerous and valuable. In some of the sections business would have been advantaged by the inflexible enforcement of a twenty minutes rule for papers, and five minutes for discussions.

DR. HUGH MCCOLL, of Lapeer, was elected President; DR. C. T. SOUTHWORTH, of Monroe, Vice-President; DR. COLLINS H. JOHNSON of Grand Rapids, Secretary; and DR. W. G. HENRY, of St. Clair, Treasurer.

The attendance of members was good, the accommodations excellent, so that nothing marred the entire session.

The next meeting will be held in Grand Rapids, May, 1897.

New Hampshire Medical Society.—This Society held its 105th anniversary meeting in the city of Concord June 1 and 2, the President, Dr. Eugene F. McQuesten, of Nashua, in the chair. The meeting was well attended, there being 105 members present. The usual routine business incident to the opening of society meetings was transacted, when the rest of the day was taken up in the reading and discussion of papers, which were of a high order and were received and discussed with animation and with much benefit to all present. The second day the society met at 8:30 A.M., when for an hour or more the time was consumed by the reading and adoption of reports of committees and election of officers. The membership of the society was increased by the admission of twenty-four physicians and surgeons. An essay on "Altitude: Its Effects upon Different Individuals, with Report of Two Cases," by Dr. George F. Gove, of Whitefield, was discussed by Drs. Conn and Hiland, of Concord. A report of how to manage an epidemic of "Variola" in small towns and cities was made by Dr. Cook, of Concord, and discussed by many members of the association, after which the President gave his annual address, which was a strong paper reviewing the progress of medicine, and introducing new features and work for the society in the future.

The following officers were elected: President, Dr. Abel P. Richardson, Walpole; Vice-President, Dr. M. C. Lathrop, Dover; Treasurer, Dr. M. H. Felt, Hillsborough Bridge; Sec-

retary, Dr. Granville P. Conn, Concord. The Executive Committee consists of Drs. Charles R. Walker, Concord; W. T. Smith, Hanover; George D. F. Towne, Manchester; F. E. Kittredge, Nashua; F. A. Stillings, Concord; A. C. Heffenger, Portsmouth; Ira J. Prouty, Keene. Necrologist, Dr. J. J. Berry, Portsmouth; Anniversary Chairman, Dr. James T. Greeley, Nashua. There was also elected a board of censors of ten members and a council consisting of twenty members. The exercises of the meeting closed with the anniversary dinner, at which about one hundred sat down to the table.

American Pediatric Society and the Odious Antivivisection Bill.—We, the undersigned members of the American Pediatric Society in session May 27, 1896, in Montreal, Canada, indorse the following memorial to the Congress of the United States, J. C. Wilson, Vice-President, Philadelphia; Samuel S. Adams, Secretary, Washington, D. C.; Rowland G. Freeman, New York; Frederick A. Packard, Philadelphia; Wm. Osler, Baltimore; A. H. Wentworth, Boston; W. P. Northrup, New York; J. P. Crozer Griffith, Philadelphia; L. Emmett Holt, New York; Charles W. Townsend, Boston; J. Henry Fruitnight, New York; Geo. N. Acker, Washington, D. C.; C. G. Jennings; Detroit; Agustus Caillé, New York; A. C. Blackader, Montreal; J. Seibert, New York; Charles P. Putnam, Boston; Floyd M. Crandall, New York; T. M. Rotch, Boston; W. S. Christopher, Chicago; W. D. Booker, Baltimore; Dillon Brown, New York; John Dorning, New York:

WHEREAS, A bill is at present pending before the Congress of the United States entitled "An act to prevent cruelty to animals in the District of Columbia," which curtails experimentation upon animals, and would put a stop to medical research; and

WHEREAS, It is very probable that such legislation would influence greatly similar legislation in the various States which would prevent the advancement of medical science and of medical education; and

WHEREAS, Such legislation would be very prejudicial and is not called for by any existing facts of cruel experiment, as the advocates of the bill themselves concede so far as the District of Columbia is concerned; be it

Resolved, That the American Pediatric Society, now in session at Montreal, presents these resolutions as a memorial to Congress and enters a protest against the enactment of such legislation, declaring it to be needless and injurious; and be it further

Resolved, That a copy of these resolutions be sent to the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION and to the other weekly journals. Carried.

SAMUEL S. ADAMS, M.D., Secretary.

The Wisconsin State Medical Society held its semi-centennial session in Madison, June 3-5, with about 150 physicians in attendance. The entire session was devoted to preventive measures and hygiene, the discussions including the sewerage and water supply, sanitation of public conveyances, elimination of contagious diseases, measures to prevent spread of diphtheria, hygiene of public schools, etc. Mayor A. A. Dye welcomed the visitors to the city, President Epley making response. The papers included: "The Rights of the Individual and of the Public in the Matter of Quarantine," by Dr. W. H. Washburn, Milwaukee; "Hygiene of Public Conveyances," by Dr. J. F. Pritchard, Manitowoc; "The Vital Statistics Problem in Wisconsin; a Remedy," by Dr. U. O. B. Wingate, Milwaukee, secretary of the State Board of Health. Officers elected for the ensuing year: President, B. O. Reynolds, Lake Geneva; vice-presidents, William Mackie, Milwaukee, and Margaret Caldwell, Waukesha; secretary, Charles S. Sheldon, Madison; treasurer, S. S. Hall, Ripon; censor, W. T. Sarles, Sparta.

American Association of Genito-urinary Surgeons.—At the tenth annual session of this association, held at Atlantic City, N. J., June 4, the following officers were elected: President, Claudius H. Mastin, M.D., Mobile; vice-president, Francis S. Watson, M.D., Boston; secretary, W. K. Ottis, M.D., New York; members of council, L. Bolton Bangs, M.D., New York, and John A. Fordyce, M.D., New York; delegate to national convention, R. W. Taylor, M.D., New York; alternate, E. L. Keys, New York. The next convention will be held in Washington, D. C.

Pan-American Medical Congress.—Prof. Dr. Don Francisco Bastillos, Calle de Tacuba, No. 7, Ciudad de Mexico D. F. Republaca Mexicana, has been elected Treasurer of the second Pan-American Medical Congress, to be held in the City of Mexico, beginning the 16th of November. All members residing in the United States and Canada, and others who contemplate attending, should forward the registration $5, gold, to him at once and notify Dr. C. A. L. Reed, Cincinnati.

NECROLOGY.

WILLIAM LOCKHART, M.D., at his home near London, aged 80. He took his degree just sixty-three years ago and in 1838 volunteered for missionary work in China. He attempted to commence medical work in Macao, but in consequence of the hostility of the Portuguese he was compelled to desist and withdraw. He next visited Chusan, in the hope of being able to commence work there, but ultimately in 1843, he went to the newly opened port of Shanghai, where he labored with great success until 1857, when he returned to England on a visit. In 1861 he returned to China and commenced the first Protestant mission in Pekin, obtaining the privilege of settlement in the Imperial city in consequence of his official position as physician to the British Embassy, which was established there in that year. His volume, "A Medical Missionary in China," published in 1860, was full of interesting details of his work, especially during the war with that country, throughout which he heroically stuck to his post. Though his active work as a missionary ceased in 1864, he retained a vivid interest in missionary enterprise, and did all he could to help it on, acting as a director of the London Missionary Society and President of the Medical Missionary Society.

SIR J. RUSSELL REYNOLDS, President of the British Medical Association. The London papers state that Sir J. Russell Reynolds, Bart., M.D., the celebrated English physician, author and lecturer, Physician in Ordinary to Her Majesty's household, died May 22, aged 68 years. Sir J. Russell Reynolds was a grandson of Henry Revell Reynolds, M.D., who was Physician in Ordinary to George III. He was appointed Physician in Ordinary to Her Majesty's household in 1878, and was made a baronet in 1895. The following minute was made by Mr. Malcolm Morris, editor of the *Practitioner*, at the time the last named honor was bestowed by the Queen: "Sir Russell Reynolds as President of the Royal College of Physicians has been in every way a worthy successor of Clark and Jenner. As a physician he achieved the highest distinction almost without an effort. Success came to him without any of the weariness of hope deferred that makes so many a stout heart sick. Of Sir Russell Reynolds as a teacher it is enough to say that his light was not dimmed even by that of Sir William Jenner teaching in the same hospital. He had an extraordinary power of intellectual stimulation, and his lectures were so graceful in style and so rich in apt illustration that they held the attention of the idlest and aroused the interest of the dullest. It is not, perhaps, generally known in the profession that in addition to his medical writings Sir Russell Reynolds has made at least one excursion into the field of pure literature in the form of a novel written in conjunction with his brother, the Rev. Dr. Henry R. Reynolds, Principal of Cheshunt College, and published anonymously. I have not had an opportunity of reading the book; but Sir Russell's Introductory Address of thirty years ago, republished recently by the *Lancet*, shows that he has at least one of the qualities that go to the making of a successful novelist, viz., skill in characterization."

EDWARD JACOB FORSTER, M.D., Surgeon-General of Massachusetts, in New York, May 15, of cerebral hemorrhage. He was returning from Philadelphia, where he had attended the annual meeting of the Association of Military Surgeons of the United States, of which society he was Vice-President. At a meeting of the Boston Society for Medical Improvement held May 18, the following resolution were presented and unanimously adopted:

Resolved, That by the death of Dr. Edward Jacob Forster, the Boston Society for Medical Improvement has met with an irreparable loss. His prompt, fearless and incisive energy; his quick and ready intelligence; the thoroughness with which he performed many self-imposed labors for the good of his professional brothers, are recognized by all of us, and will never be forgotten.

Dr. Forster was born in Charlestown, of early colonial stock, on July 9, 1846. He received his degree in medicine from Harvard University in 1868, and then continued his studies in Paris and Dublin before establishing himself in practice in his native city. As his professional life unfolded, and wider interest of official and civil character enlarged his opportunities for usefulness, he ceased to be a local practitioner merely, and became identified with the larger affairs of Boston and the Commonwealth. Four years ago he removed his home to Boston. The Boston Medical Library is indebted to Dr. Forster for many years of faithful service as treasurer. The future of the library, and the plans for a new building engaged much of his thoughtful attention. The Obstetrical Society of Boston will long cherish the remembrance of his generous nature and of his service in various offices. Under his will his valuable medical library will be donated to the Boston Medical Library.

W. C. PEPINO, M.D., at Des Moines, Iowa, June 3. His death was the result of fracture of the skull by the kick of a horse from which he was thrown while riding. Dr. Pepino was a graduate of the University of Maryland School of Medicine, Baltimore, Md., 1873. He was Professor of Rhinology and Laryngology, Iowa College of Physicians and Surgeons; Member AMERICAN MEDICAL ASSOCIATION, Iowa State Medical Society, etc.

JOHN J. BRINKERHOFF, M.D. (Bellevue Hospital Medical College, New York, 1867), of Auburn, N.Y., of apoplexy, May 27. He was a veteran of the civil war.——Wilbur C. Curry, M.D. (University of Maryland School of Medicine, Baltimore), Baltimore, Md., May 28.

PIETRO GAMBERINI, M.D., died at Bologna. He was the oldest and one of the most esteemed dermatologists in Italy. He founded the *Giornale Italiano delle malettie veneree e della pelle*, among the first medical magazines devoted to a special branch.

GEORGE TRAILL, M.D. The Policlinique at Lille, France, and its publication are mourning the loss of their young founder, Prof. Traill. His numerous articles on his specialty, diseases of the uro-genital organs, were based on personal observation and experience, and have been widely copied.

MISCELLANY.

Presumption of Accidental Death.—Where the evidence as to a death being accidental or suicidal is so nearly balanced as to leave the question in doubt, the supreme court of Kansas holds, Mutual Insurance Co. v. Wiswell, May 9, 1896, the presumption is in favor of the theory of accidental death.

Payment not Prerequisite of Proof.—Proof of expenses incurred by a person injured for necessary medicine, medical attendance, and nursing, the supreme court of Utah holds, Wilson v. Southern Pacific Co., April 15, 1896, may be made when properly alleged in the complaint, though they have not been actually paid.

Bellevue Hospital Medical College.—The following are among the recent changes in the faculty of that College: William P. Northrup was elected to the chair of pediatrics, and George D. Stewart to that of anatomy (adjunct). J. Lewis Smith, in consideration of his long connection with the college, was appointed Emeritus Professor of Diseases of Children.

Tetanus Cured with Calmette's Anti-tetanus Serum.—The *Bulletin Médical* of May 3, describes the case of a lad of 13, who cut his knee while wading in a filthy ditch, and developed a typical and distressing case of tetanus. Treated with chloral, morphin and three injections of 10 c.c. of serum in the course of three days, the lad had entirely recovered in a week.

Emotional Insanity.—The supreme court of New Jersey holds, Genz v. State, May 2, 1896, that it was not error for a trial judge to instruct the jury that emotional insanity is an insanity which depends upon the mere emotions of the time, arising from some defective or perverted moral sense, which begins on the eve of a criminal act and ends when it is finished.

Can Not Grant Temporary Certificates.—The attorney-general of Ohio, having been asked his opinion as to the right of the State Board of Dental Examiners to grant a temporary certificate of admission to practice, to students in dental colleges who have not finished their course, holds that the board can not do this, but must either refuse the certificate or else grant one admitting the applicant to full practice.

Polluted Jordan River Water Causes Death.—A recent cablegram from Berlin brings to light the fact that the illness which caused the death of Archduke Karl Ludwig, brother of Emperor Francis Joseph, who died in Vienna a few days ago, was ascribed by his physician to his drinking of the waters of the River Jordan, which he did as a matter of religious devotion upon the occasion of his recent pilgrimage to Palestine. The water of the Jordan is by no means pure, and in the case of the Archduke it had a tendency to bring on intestinal weakness, which could not be overcome.

Minnesota Inebriate Law Unconstitutional.—Chapter 156 of the General Laws of Minnesota of 1895, which is entitled "An act to provide for the treatment of inebriates by counties," etc., the supreme court of Minnesota holds invalid, for the reason that it assigns to the probate judge powers and duties beyond the jurisdiction authorized by the constitution. Foreman v. Board of Commissioners of Hennepin County, May 11, 1896. The proceedings authorized by the act, the court further says, do not amount to a commitment of an inebriate to the guardianship of anyone, and hence do not come within the general jurisdiction of "persons under guardianship" conferred by the constitution on the probate court, although the framer of the bill evidently intended to give it the appearance of a proceeding for the appointment of a guardian for the inebriate.

Serum Treatment of Diphtheria in Three Cities.—In the statistics of the Belvidere Hospital, Glasgow, for 1895 we note that while the annual mortality in cases of diphtheria during the previous five years averaged 38.3, in 1895, with the use of serum reached 14 per cent. Dr. Henry W. Berg, one of the attending physicians at the Willard Parker Hospital for Contagious Diseases, New York, reports that since the introduction of the antitoxin treatment of diphtheria in that institution not only had the proportion of deaths from the disease been greatly diminished, but the number of cases of post-diphtheritic paralysis in those who recovered had been far fewer than formerly. The St. Louis Board of Health has made public the conclusion of an official inquiry into the results of the treatment of diphtheria with antitoxin. The report covers 326 cases, of which 15 were fatal.

Gastropathy of Syphilitics.—Gastou and Babon have been studying this complication of syphilis, due to the medicine, or

to some predisposing alcoholism or chlorotic dyspepsia, or to some uterine affection or a floating kidney. They state that the chemic formula is hypopepsia, with retarded secretion of gastric juice, and abnormal fermentations. It commences either abruptly with burning sensations, pains and acid regurgitations, or proceeds more slowly with irresistible drowsiness, followed by pains and gases, but no vomiting. It often follows abuse of KI pills, and Hayem has found that Gibert's syrup is apt to produce it. With this tendency patients should avoid medication by the stomach, and be treated with mercurial injections and iodin externally.—*Annales de Derm. et de Syph.* April.

A Recruit for Achilles Rose.—A new style of prescription writing is recommended by Dr. Loeffler in the *Aerzt. Korrespondenzblatt.* The author calls attention to the fact that in prescribing the newer remedies, the names of most of which are familiar to the general public, the customary writing of prescriptions in the Latin language does not protect the physician from inconvenient criticisms of laymen, so that it often would seem advisable to adopt a style less intelligible to most persons. To this end Dr. Loeffler has used for some time the Greek alphabet though still retaining the Latin nomenclature, and in all the apothecary shops of Dresden his prescriptions are readily understood. E. g., he prescribes antipyrin as follows:

℞ ἀντιπυριν 1.0
Δ. ταλ. Δωσ. Νω. X.
Σ. Daily, etc.

Civil Rights.—The civil rights law of Illinois provides "that all persons within the jurisdiction of said State shall be entitled to the full and equal enjoyment of the accommodations, advantages, facilities, and privileges of inns, restaurants, eating houses, barber shops, public conveyances on land or water, theaters and all other places of accommodation and amusement, subject only to the conditions and limitations established by law, and applicable alike to all citizens." May 12, 1896, the supreme court of the State decided, in the case of Cecil v. Green, which was brought by a colored man because a druggist refused to sell soda water to him, that a drug store in which a soda fountain is kept, from which is dispensed the character of liquids usually sold therefrom, can not be considered a place of accommodation or amusement to any greater extent than a place where dry goods or clothing, boots and shoes, hats and caps, or groceries are dispensed, and is not within the purview of the statute. Nothing in this provision, the court says, requires a physician to attend a patient, a lawyer to accept a retainer, a merchant to sell goods, a farmer to employ labor, unless of his own volition, regardless of any reason, whether expressed or not.

The Cleveland College of Physicians and Surgeons.—The school formerly known as the Medical Department of the University of Wooster, located at Cleveland, has become the Medical Department of the Ohio Wesleyan University, and will hereafter be known as the Cleveland College of Physicians and Surgeons. All steps in the transfer have now been completed. A very desirable lot, 80 by 120 feet in size, has been donated to the trustees of the University, upon which a building for medical college laboratory purposes is to be erected at a cost of not less than $50,000. The funds for the erection of the building have already been pledged, and the structure will be ready for teaching purposes in 1897. This laboratory building together with the new Cleveland General Hospital which is entirely under the control of the college for clinical teaching purposes, will place the school in an excellent educational position. At the annual faculty meeting Dr. Charles B. Parker was elected dean of the new school, and Dr. H. W. Rogers re-elected secretary. The union of the medical school with the university is an intimate one, and it will doubtless prove advantageous to both institutions.

Iodized Vasogen in the Treatment of Syphilis.—Leistikow describes his experience with iodized vasogen, containing 6 per cent. of iodid, in the *Annales de Derm. et de Syph.* for April. In one case of recent secondary syphilis a course of frictioning caused the morbid symptoms to disappear, but they were followed by violent cephalea, resisting every remedy, even iodid taken internally. Daily frictions of the scalp with five grams of iodized vasogen were accompanied by marked improvement in three days and a complete cure in three weeks. A case of extensive periostosis which had been only slightly improved by frictioning and the application of phenic mercurial plaster and iodin taken internally, yielded at once to a few massages a day with iodized vasogen, with a complete cure in fourteen days. Similar success was attained in a case of sciatic neuralgia, also in six cases of ano-genital patches, and a case of syphilitic pigmentation of the neck. In some of these cases all other treatment had been ineffectual; but in three cases of lupus vulgaris the results were absolutely negative. In one case of gummy tumors the cicatrization took place more rapidly than with any other treatment. Leistikow ascribes the superiority of iodized vasogen over the usual remedies for syphilis to the fact that the absorption of iodid with it is very rapid.

Indications for Irrigation of the Stomach.—Martius states as follows the indications for lavage of the stomach: 1. Acute poisoning; the introduction of the water dilutes the poison and renders it less harmful and it can be withdrawn with the fluid. 2. Stagnation in the stomach from stenosis of the pylorus, whether due to a benign or malignant growth. 3. All cases of occlusion of the intestines from whatever cause. Irrigation always relieves and may possibly cure without further treatment. Guerin commends it in the current *Archives de Bordeaux* for its action in arresting the painful vomiting of fecal liquids, while it allows medicines to produce their proper effect. It is also generally indicated in carcinoma ventriculi, acute and chronic catarrh and all functional diseases of the stomach. Also in tympanites such as occurs in severe abdominal typhus and in nervous dyspepsia and spasm of the esophagus. Others have found it very beneficial in infantile gastric and bowel troubles, acute and chronic. Some consider it ineffective in neurasthenia gastrica, but it often produces a cure in nervous dyspepsia when the patient can be made to see for herself that her stomach is digesting normally. Minkowki has found it very valuable in arresting hemorrhages. He suggests that the time of using it is very important; if the patient is allowed to eat again soon, the benefits are often lost. He advises it the last thing at night. Quincke uses the irrigator for removing the liquid also.—*Memorabilien* for April.

The Yuma Indians of New Mexico.—The Bureau of American Ethnology of the Smithsonian Institute has, according to the New York *Sun*, in preparation a preliminary report regarding this interesting tribe of aborigines. The treatment of the sick is one branch of the subject touched upon in that report, which shows that there is about the same grade of intelligence in this tribe and in its medicine-man that is exhibited by other and less interesting natives. The report, in part, says that the sick, no matter how exhausted or in what agony, are compelled to submit to the roughest handling from the medicine-man, who excitedly rolls his patient to and fro in frantic endeavors to discover the point of disease. The relatives, sitting upon their heels around the hut, are ordered to maintain silence, as noise would break the spell. Severe pain is attributed to sticks, as, for example, when the physician supposes that the heart is affected, he loudly ascribes it as two sticks pushing upward from the stomach to the heart. Sucking with the lips upon the stomach is resorted to in order to soften the hard stick-like substance, for only when this is accomplished will the patient recover. Rapid touches upon

the breast draw out the pain in case of pneumonia, and deafness by blowing in the ear. Touching, slapping, expectorating, blowing and massage, associated at times with monotonous chanting, unearthly howling, and an occasional swaying dance, complete the usual course of treatment. Recovery under such circumstances is very doubtful. The debt in the event of recovery is liquidated with blankets, horses, money and other possessions, but nothing is forthcoming should the patient die.

Innervation of the Intestines.—Pal states that not only the stomach, the small intestine and the upper third of the colon, are innervated by the vagus, as hitherto accepted, but also the whole of the colon and rectum. He experimented on curarized dogs, endeavoring to determine whether there were any controlling motor centers for the intestines below the splanchnic centers in the spinal cord. Simple section of the dorsal portion of the spinal cord (from the sixth to the tenth dorsal vertebræ), causes more violent movements when stimulus is applied to the vagus. If the lower dorsal or lumbar vertebræ are removed, the intestines assume a different appearance. (Animals from ½ to 1½ years are best for these experiments.) The vessels become fuller, the intestinal walls thicker and the intestine itself begins to move with a peculiar motion resembling the pendulum swing of a rabbit's intestines. Stimulus applied then to the vagus produces a much stronger action than before, with a noticeable shortening of the time between the stimulation and the response. If, however, the lower part of the spinal cord is removed and the nervi splanchnici severed, the intestines also assume the above conditions. When then the vagus is irritated, violent peristaltis ensues, but this movement is controlled by applying stimulus to the stump of the splanchnicus, which proves the existence of other centers in the spinal cord below the splanchnicus, controlling the peristaltic action of the intestines.—*Centralblatt f. Physiologie*, April 4.

Explorations of an American Physician.—Dr. Donaldson Smith, of Philadelphia, recently addressed the Drexel Institute regarding his adventures in Somaliland, parts of which had never been seen by a white man. He had been gone from his home less than two years. In July, 1895, after many hardships and privations, the explorer reached the eastern shore of Lake Rudolf, near the northern end, and he had passed through a country that no white man had ever set foot in before. On July 19, leaving the caravan at the lake, Dr. Smith turned north to explore the Nianann river, which empties into Lake Rudolf. He was taken with fever and turned back, but set out a few weeks later and explored the country one hundred miles north. On his return to the lake the party journeyed to the southern end, incidentally discovering that the River Bass, which a former explorer is said to have discovered emptying into Lake Rudolf, does not exist. A peculiar source of discomfort to the party was the frequent invasion of rhinoceroses, these animals taking particular umbrage at an exploration of their native haunts, and venting their spite by driving the human beings into the thorn bushes for refuge. Four carriers were injured and two camels killed by these beasts. One of the carriers had an arm bitten off by a crocodile, and Dr. Smith amputated the rest of the injured member. The explorer discovered a mammoth cave formed on the River Webi by the erosion of the rocks. The roof was supported by great pillars, shaped like double cones, and so regularly arranged that they seemed to have been carved by the hand of man. He also visited a small town beyond the borders of Somaliland, built by the Arabs many years ago, though geographers say that the Arabs never penetrated so far. It was built and ruled originally by Sheikh Huslin, a Mahommedan saint, who came there two hundred years ago. It was here that some of his followers became discontented and an outbreak occurred, which, however, was soon quelled.

The Champion Quack of Modern Times.—The *London Lancet* announces the death of Count Mattei, of Florence, speaking of him as "the most successful irregular practitioner of the nineteenth century. He was a fat spider who sat at the center of a web whose ramifications extended all the world over and enmeshed patients of high and low degree, especially the former." Statesmen and diplomats, men to whose judgment and *finesse* the most momentous as well as the most delicate missions were confided, had no hesitation in entrusting their health, mental and bodily, to a man who studied medicine by himself—note the order—after having discovered his great secret. And they were quite ready to show cause for the faith that was in them and one and all to assure their hearers that, having found orthodox medicine useless or worse, they had got rid of their ailment (whatever it was), and regained their powers of work and enjoyment of life by Count Mattei's "granellini di zucchero saturi di elettricita bianca, bleu, rossa o verde" (sugar granules charged with white, blue, red or green electricity), which were equally good for tuberculosis or chilblains, anemia or plethora, cancer or wry-neck, acute melancholia or inhibitory paresis. Under the shelter of social prestige and aristocratic testimony, Count Mattei added daily to his "miraculous cures," and steadily amassed a fortune which, in the language of a panegyrist, "made him several times over a millionaire." Vainly did foreign custom houses interpose their barrier to the import of his "granellini." Vainly was the law invoked against the sale of patent medicines, the composition of which was undeclared even to the licensing authority. "Agents" were found not only to introduce the granules into every Christian country, but to effect their sales in quarters the most conspicuous and exposed, and the army of such functionaries, subsidized by Count Mattei at considerable cost, still left the gains from the "business" enormous. Dying the other day at Bologna, he has bequeathed two million lire ($400,000) to charities, while the bulk of his fortune descends to his adopted son and heir, Mario Venturoli Mattei, to whom he has also left his "segreto miracoloso."

The Tsetse Fly Disease of South Africa.—It has been said of that terrible horse and ox destroyer, the tsetse fly, that it is "an ill wind that blows nobody any good;" and that this ravaging insect has been a very considerable drawback to the land-piracy and territorial greed of the European, in that part of the world. But now science bids fair to come to the relief of land thieves of Europe, by discoveries that have been made regarding the true cause of the elective fatal operations of the fly. In the *British Medical Journal*, for May 16, it is made known that Surgeon Captain David Bruce has discovered that the true cause of the tsetse fly disease is not any secretion or property of the fly itself, but that the fly is merely the passive agent for conveying a living virus from infected to uninfected animals. This virus he has clearly shown to be a protozoon, closely resembling, if not identical with, the trypanosme evansi, the acknowledged cause of the surra disease of India, and possibly, identical with the similar flagellated organism found in the blood of rats and hamsters in England and on the continent of Europe. Bruce has also shown that when the tsetse fly, after feeding on the blood of an affected animal, proceeds to feed upon an unaffected animal, it introduces the trypanosome with its bite; and that after a short incubation period the trypanosome appears in the blood of the latter concurrently with the outbreak of fever, and that sooner or later death is almost inevitable, a high degree of anemia, accompanied by wasting and dropsical swelling, preceding the fatal issue. Surgeon Captain Bruce's discovery will draw attention once more to the part played by insects, particularly bloodsuckers, as factors in pathology. The role of the mosquito is beginning to be recognized; that of the tsetse is now established and possibly, ere long, other bloodsuckers will be found to possess similar properties, either as active agents in the biologic cycle of disease germs,

as in the case of the mosquito, or as media for their conveyance from one human being or from one animal to another, as the case of the tsetse fly. Diseases with peculiarly localized geographic distributions—distributions apparently not directly dependent on climate, but on some strictly local and limited circumstance—may be conveyed in the same way as this tsetse fly disease, and owe their peculiar geographic distribution to something of the same sort. The name by which the tsetse fly is known to entomologists is "glossina morsitans;" it is a dipterous insect, somewhat larger than the common house-fly.

The Medico-Legal Value of Ecchymoses Questioned.—The *Medical Press and Circular* is led to caution the profession against a too ready acceptance of the *prima facie* evidence of ecchymoses. The editor of that journal treats the subject in a leading article, in the feeling of a witness who "had been there." He writes, in part, as follows:

"It is now a well-recognized fact that more or less considerable extravasations of blood may take place beneath the skin or of the mucosæ or on to the surface of the internal viscera from purely physiologic causes, giving rise, however, to appearances which might easily be mistaken for the results of violence in some form or another. The possibly natural origin of such ecchymoses seems only to have been recognized within the last decade or two, and this fact suggests some uncomfortable thoughts concerning probable injustice to accused persons in the past. When a certain French medico-legal authority first called attention to petechial ecchymosis on the surfaces of the lungs it was for the purpose of promulgating the view that they afforded evidence of death from suffocation in one or other of its forms. This has since been proved not to be the case, for they have been met with in connection with action of particular poisons, particularly those belonging to the benzine series, as well as after death from burns, etc. Although these extravasations thus lose the diagnostic value which had been attributed to them, the subject is one well worthy of attention in order that full light may be thrown upon the mechanism of their production. For instance, they are not unlikely to occur in the insane, and in this event their presence on the skin would not unnaturally give rise to unfounded suspicions of violence at the hands of the attendants. In a paper dealing with this subject at a recent meeting of the Royal Medical and Chirurgical Society, Dr. Ledlard laid particular stress upon the possibility of such ecchymoses on the mucous membrane of the vulva and vagina leading to the presumption of rape. Their position in the body, their delicacy of structure, and their vascularity render this portion of the female anatomy peculiarly liable to exhibit punctiform ecchymoses in virtue of the same causes that determine their appearance elsewhere. Mr. Hutchinson quoted a striking instance of the production of extensive ecchymoses in an elderly gentleman as the result of an attack of whooping cough contracted from his grandchild. As any medical man is liable to be called upon to discharge the delicate and responsible function of medical assessor in criminal cases, it is highly desirable that a knowledge of this curious phenomenon should be widely disseminated, for it is not difficult to imagine various circumstances in which these ecchymoses would probably be ascribed to violence or asphyxia, instead of to their real cause whatever that might be in the particular case."

Compensation in Case of Malpractice.—The supreme court of Iowa affirmed, in the case of Whitesell v. Hill, April 11, 1896, a judgment for one dollar against a physician who was charged with malpractice in reducing a fracture of the plaintiff's arm. While it might be that the verdict of the jury was the result of a compromise, yet the court thinks it was not so discordant as to justify it in interfering in behalf of the plaintiff, who took the appeal. It says that the jury might well have found that the condition of the plaintiff's arm, as it appeared at the time of the trial, was in a large measure contributed to by an injury he received after the defendant had ceased his treatment. The court holds that a physician is only required to exercise the average degree of skill, learning, and ability possessed by members of the medical profession in the locality where he practices, the word "average," as used meaning the same as "reasonable" and "ordinary." It also holds that it was proper for the trial judge to instruct the jury to consider the condition of the plaintiff's arm as it appeared upon the trial, but that they were not justified, from this alone, in finding for him; that they must also find such result was due to defendant's negligence in the treatment of the injury. And it holds that the trial judge properly told the jury that the burden was upon the plaintiff to show his freedom from negligence contributing to the injury. Then, it was argued that the two claims, for service and for malpractice, could not coëxist, and that a recovery by either was a bar to an action by the other. Admitting that there are some authorities in support of this contention, the court says that it does not think these cases announce the correct doctrine. The rule in Iowa, long ago established, is that a party who has failed to perform his contract in full may recover compensation for the part performed, less the damages caused by his failure to perform the whole contract. It does not necessarily follow, continues the court, that, because a physician or surgeon may be guilty of negligence, which causes some inconsequential or inconsiderable injury, he is to be deprived of all compensation for his services on account thereof. Whether he shall lose the value of his services depends upon the amount of damages suffered by reason of his neglect to perform his duty. No penalty beyond the amount of the actual damages sustained is to be visited upon him because of his negligence or want of skill.

Inhalations of Iodin and Carbon Disulphid in Phthisis.—Drs. Stovall and Twitty, of Columbia, Ala., write to the *New York Medical Journal* regarding the use by inhalation of the above named and other substances, in pulmonary tuberculosis. They have found the disulphid to be volatile at ordinary temperatures and an ideal vehicle for carrying iodin to all parts of the laryngeal and lung areas.

"We are quite positive that by deep inspiration the remotest recesses and apical caseations are reached. The good effects are manifest during the first day's trial, and the night cough which is so troublesome and exhausting is much improved, and this is among the first benefits derived. Expectoration is lessened in quantity and the quality is made decidedly better in a short time. The sulpho-carbon compound is put down as poisonous, and we have watched very closely for any untoward symptoms attributable to its inhalation, but so far have failed to note any objection to its use under proper precautions and directions from the physician. About a 12 per cent. solution, or, more accurately, one of a drachm of iodin to the ounce of disulphid, is what we have used in practice. Owing to the solubility of rubber and kindred matter in the disulphide, it is rendered inadmissible as material for an inhaler, which should be made of glass preferably.

"A cheap, convenient instrument may be improvised by using a small test tube with a sponge in the bottom saturated with the liquid; it will be necessary to replace the sponge frequently, because of the corrosive action of the medicine. For lung and laryngeal treatment, the inhalation is to be made through the mouth with the instrument pushed far back, approximating the opening of the larynx. The frequency with which it may be used is variable according to the individual condition and effects; we may say, on an average, once every two hours during the day. The bisulphid has a bad odor which is objectionable to some patients. We have experimented with a view to rendering it more agreeable and have made various additions and modifications, resulting with no advantage considerable enough to justify the use of anything additional, inasmuch as such a change might possibly lessen the practical value of the original formula. Menthol is perhaps the most harmless addition that we have attempted. We should be very glad if the profession would prove the efficacy of the treatment and report the results."

Gastrostomy.—The following is an account of a successful gastrostomy in the practice of Mr. William Battle, of St. Thomas Hospital, as reported in the *Medical Press and Circular*. The patient was a male, aged 60 years, with a malignant stricture of the lower part of the esophagus from which he had been suffering for some six months. He was unable to swallow solid food of any kind, but could still swallow fluids; he did not suffer any pain, but was emaciating rapidly and loosing strength. No bougie could be passed through the stricture. One had been passed on a former

visit about a fortnight before. There was no sign of disease elsewhere, and the patient agreed to submit to operation after the nature of it had been explained to him. It was decided to perform the operation in two stages, and by a method which permitted of quick operation. The oblique incision was made in the usual situation parallel to the left lower ribs and deepened down to the rectus muscle, the fibers of which were separated, and the remainder of the incision continued in the longitudinal direction. The abdominal wall was unusually thick for a case of gastrostomy, as there had been comparatively little loss of the subcutaneous tissue. The stomach was easily found and drawn into the wound. The portion selected for the opening was carried to the extreme right of the oblique incision and then two stitches passed through the peritoneum and walls of the stomach, one above and the other below, so as to shut off the peritoneal cavity. The highest point selected for the opening was drawn through a Senn's bone plate and transfixed with two hare-lip pins, which did not, however, enter the interior of the stomach. A trocar and canula were then passed between the pins into the stomach, and on withdrawal of the trocar a No. 1 catheter was introduced through the canula into the stomach, and the canula withdrawn over it. A stitch was then passed through part of the stomach wall, and the ends tied around the catheter. The external wound was closed with interrupted sutures, the bone plate being left across the upper part and at right angles to it. Cyanid gauze was applied to the wound, a many-tailed bandage put on. The end of the catheter was plugged and brought into the cotton wool of the dressing. Two points, Mr. Battle said, were of importance in performing the operation; first of all, by going between the fibers of the rectus muscle, he hoped to obtain a kind of sphincter action; secondly, by carring the opening as high up as possible, he hoped that further obstacles to the escape of gastric contents would be presented as the mouth into the stomach would be considerably higher than was usually the case after gastrostomy. The patient's great complaint after this operation is of the irritation caused by the escape of the gastric juice, which produces troublesome eczema and much soreness for some distance round the opening.

The New Japanese Dressing for Wounds, Straw Charcoal.—The physician attached to the French Embassy at Pekin, "Aide Major de l'armée" and physician to the Russian Embassy writes to the March *Archives de Bordeaux*, describing the superior advantages of this new dressing, suggested by Kikuzi in 1891, and used with great success after the earthquakes and during the last campaign. He writes from personal observation on the field and in the hospitals in Japan, where it is exclusively used, and states that the results obtained with it after the battles of Port Arthur and Wei Hai Wei were admirable, while among the Chinese wounded tended by English medical missionaries, the results of treatment were deplorable. The Japanese use rice straw, but any straw is equally as good, and the process of preparation disinfects it thoroughly. It forms a brownish, almost black, powder, composed of the charcoal, fragments of unconsumed straw, dust and ashes. The analysis shows the following ingredients in a hundred parts: Silicate of soda, 54.207; chlorid of sodium, 11.185; carbonate of potassium, 8.679; phosphate of soda, 7.673; carbonate of soda, 7.421; sulphate of potassium, 1.132: sulphate of soda, 1.132; magnesium, aluminum, organic matters, 8.561. The charcoal powder is exceedingly fine, porous and elastic, fitting smoothly and evenly over the wound, especially if applied in a soft bag as the Japanese use it. They employ fine linen for the bags, left open at one end, and used again and again, after washing and disinfecting. Like all charcoal it requires slow combustion without air. Small quantities are prepared as required by filling a boiler with straw and after lighting it replacing the cover. Large amounts are charred in a closed room or kiln. The charcoal is then spread out to cool and the ashes sifted out as much as possible. To measure its absorbent power, Kikuzi dipped equal volumes of cotton, gauze and charcoal into water and then weighed them. Other similar portions he dipped into water and then placed them on a sloping board, under heavy equal weights, to determine which retained its moisture longest. He also experimented to determine the amount of evaporation in six tests. The following table shows the results of these experiments: Cotton 5 grams, maximum absorption 80, remaining after pressure 43, evaporation 4, 8, 13, 19, 26, 33; gauze 8 grams, maximum absorption 66, remaining after pressure 44, evaporation 4, 10, 17, 25, 33, 44; charcoal 15 grams, maximum absorption 65, remaining after pressure 58, evaporation 5, 10, 16, 24, 30, 43. The bags are kept on hand in three sizes, 10, 13 or 20 centimeters long by 7, 10 and 13 centimeters wide, with a uniform thickness of 2 centimeters. A freshly filled pad is best, but they can be filled and kept for weeks in a metal box. The cheapness of this dressing and its abundance everywhere recommend it especially for military use, as numbers of the bags can be always kept on hand ready for use, much less bulky and expensive than the gauze required in a campaign. To sum up its advantages: 1, its absorbent power is greater than gauze; 2, it is to be procured everywhere at a trifling expense; 3, it can be used without further disinfection, and its elasticity is equal to that of gauze. Simple, practical, quickly prepared and inexpensive, Dr. Matignon considers that it seems to realize all the conditions of an ideal dressing.

A Forgotten Medical Pathfinder.—Sir Richard Quain has lately addressed one of the London Medical Societies on the subject of Asiatic cholera. In the course of his address he expressed great regret that the profession had hitherto erected no memorial to the late Dr. John Snow, of London, the discoverer of the theory that cholera is a water-borne disease. It was in 1854, or forty-two years ago that Dr. Snow announced his views, "the result of a rigid scientific investigation which has done much toward the clearing up of the mystery of disease causation, and which has rendered an immense service to mankind that has not been recognized so fully as it should be." This is the language of Dr. Quain in his Dictionary of Medicine, and expresses the feeling which he has emphasized in the address referred to. As Sir Richard Quain is the President of the General Medical Council of Great Britain, we may confidently expect that his neglected hero will be properly honored. Dr. Snow was born in 1813 and died in 1858, having been at the time of his decease not more than twenty-five years in the profession; and he survived his epoch-making publication on the propagation of cholera only four years. The following is a portion of Sir Richard Quain's remarks upon the meritorious work of Dr. Snow, as reported in the *British Medical Journal*.

"Why is it that we are protected, and that cholera is prevented from invading us? It is very much owing to the researches of a man, probably hardly known to any of you—Dr. Snow. He is was who pointed out that cholera was propagated by polluted water. This conclusion was the result of close research, Snow's investigation being opposed by such eminent men as Dr. Baly and Dr. Gull. They did not believe that cholera was thus propagated. At last there occurred a very bad attack in the neighborhood of Golden Square, and the Broad Street pump became historical. Snow found that the people who drank water from that pump suffered from cholera, but those who did not, and took other water, escaped. An old lady and her niece migrated to Hampstead from this district, and died of cholera. There was not a case of cholera at Hampstead, but Snow showed that these good people had the water sent to them daily from their favorite pump at Hampstead. Nothing could be more confirmatory of the fact that cholera was propagated by poisoned water. These researches were extended by Sir John Simon and his able lieutenants, Drs. Parkes and Netten Radcliffs. Yet to-day possibly nine-tenths of the people now living do not know of Dr. Snow. There is no memorial; no monument. His name is unknown; but I hope, before I

leave this earth, I shall secure something in the shape of a memorial to him. Probably the best of all would be, on the Thames Embankment, a granite fountain with the inscription that Dr. Snow had saved millions of lives. He was a graduate of the University of London, a member of the College of Physician's, and lived in Savile Row. He died at 45 years of age. He was a most unobtrusive man, and is best known as having written on chloroform and anesthetics. We found memorials to all classes of people, and he is forgotten. He has been instrumental in saving the lives of millions. Had he been a successful general, responsible for the death of thousands, he would have received a peerage and a pension."

In commenting on these observations of Sir Richard Quain, the *Hospital* charges that the neglect of Dr. Snow's memory is the fault of the medical profession rather than of the general public, by saying that Dr. Quain sums up his indictment against his fellow countrymen in this sentence:

"Dr. Snow made us masters of the deadly plague of cholera." Dr. Snow thereby saved millions of lives. The sole reward which England has conferred upon Dr. Snow is midnight oblivion. If Snow had been a soldier the nation would have honored his memory with monuments more enduring than brass. No doubt that is so; and yet we can not blame the nation. The soldier is a very indispensable person, and though he slays rather than saves, he slays that his country may be saved, not only in its life, but in its freedom and its greatness. If we were to probe the facts to the bottom we should probably find that professional jealousy had much to do with obscuring Dr. Snow's great work. The unscientific community could not take the true measure of his researches and conclusions. We have seen how Gull and Baly opposed. If they were skeptical, how could the majority of the profession believe? Above all, if medicine as a whole withheld its faith, how could the unscientific public be more appreciative than its medical guides? Medicine has often before made the *amende honorable*, especially after the prophet's death. It is better that we shall honor a great name now, at any rate for the sake of our own honor and mental peace, than that we should not do it at all. "Before I leave this earth," said Sir Richard Quain, "I hope I shall secure something in the shape of a memorial to Snow." A drinking fountain on the Thames Enbankment is the form of memorial proposed. The particular form is of little moment. What is wanted is that a memorial, a national memorial, or better still, a memorial by the whole civilization, shall be raised to the man who has made all civilization his debtor for life and well-being. What the medical profession can do, is to make a beginning. If that beginning be generously made, we shall not have many years to wait for an adequate memorial to a great medical name. What the American profession can do is to show that the work of Dr. Snow is not unrecognized on this side of the water, after the beginning by Sir Richard Quain has been made. We estimate that there are not less than two hundred of our physicians who are no strangers to Dr. Snow's claim for recognition and would gladly "lend a hand." Let us have a National Board of Health.

We are personally indebted to Mr. Ernest Hart, of the *British Medical Journal* for much of the quoted matter in this article.

New Law Regulating Practice of Medicine in Ohio.—Feb. 27, 1896, a new law was passed in Ohio relating to the practice of medicine in that State. It provides for the appointment, by the governor, by and with the consent of the Senate, of a State board of medical registration and examination, consisting of seven members, the full term of service to be seven years. They shall be physicians in good standing in their profession. Representation is to be given on the board to schools of practice in the State as nearly as possible in proportion to their numerical strength in the State, but no one school shall have a majority of the whole board. The president and treasurer shall be members of the board; the secretary a physician in good standing in his profession, each to serve for one year. The board shall meet in Columbus on the first Tuesday of January, April, July and October of each year, and at such other times as the board may appoint. Five members shall constitute a quorum. The books and register of the board shall be prima facie evidence of all matters recorded therein. No person, it is further enacted, shall practice medicine, surgery, or midwifery, in any of its branches, without first complying with the prescribed requirements. If a graduate in medicine or surgery, he shall, either personally, or by letter or proxy, present his diploma to the board for verification. Accompanying the diploma, he shall file his affidavit that the applicant is the person named in the diploma and is the lawful possessor of same, giving his age and the time spent in the study of medicine. If the board shall find the diploma to be genuine, and from a legally chartered medical institution in good standing, as determined by the board, and the person named therein the person holding and presenting the same, the board shall issue its certificate to that effect, which, when left with the probate judge of the county of his residence for record, shall be conclusive evidence that its owner is entitled to practice medicine or surgery in the State. If a legal practitioner of medicine under the laws in force at the time of the passage of this act, but not a graduate of medicine and surgery, as above defined, he shall furnish the board an affidavit stating the period during which and the places at which he has practiced medicine or surgery, and if the board shall be satisfied from the affidavit and other information received that he was a legal practitioner of medicine in Ohio at the time of the passage of the act, it shall issue its certificate to that effect, which when left for record, shall be evidence, the same as stated in the previous case. If engaged in the practice of medicine in Ohio at the time of the passage of this act, but not a legal practitioner under the laws then in force, nor a graduate in medicine or surgery as above defined, he shall present himself before the board and submit to such examination as to his qualifications as the board may require. The board's certificate to him, on passing a satisfactory examination, will only entitle him to practice for one year from date thereof. The board may refuse to grant a certificate to any person guilty of felony or gross immoral conduct, or addicted to the liquor or drug habit to such a degree as to render him unfit to practice medicine or surgery; and may, after notice and hearing, revoke a certificate for like cause; appeal being allowed, in either case, to the governor and attorney general, whose decision is final. Ninety days after this law takes effect is allowed all persons engaged in practice to comply with its requirements. An affirmative vote of not less than five members of the board is necessary for the issuance or revocation of a certificate. The fee for a certificate in either of the first two cases is $5; on examination, $25, a re-examination within a year being allowed the unsuccessful. Upon application, the probate judge shall make out a certified copy of any certificate and the indorsements thereon, which shall be prima facie evidence of all matters and facts therein contained. In case of a change of residence, the owner of a certificate must have the same recorded anew by the probate judge of the county into which he removes. Every person practicing midwifery in the State at the time of the passage of this act, shall within ninety days file with the probate judge of the county in which she resides, an affidavit giving her name, age, residence, the length of time during which and the place or places at which she has been engaged in said practice, and the special education, if any, which she has received to fit her for such practice. Thereupon, upon the payment of a fee of $5, the probate judge shall issue a certificate which shall entitle her to practice midwifery. All persons desiring after the passage of this act to enter upon the practice of midwifery in the State, shall appear before the State board and submit to such an examination in midwifery as it shall require. Its fee for a certificate is $10. A certificate to practice midwifery may be refused or revoked for the same

causes and in the same manner as a physician's certificate. It must also be recorded the same as the other. But a certificate granted to practice midwifery shall not give the holder the right to perform version, or treat breech or face presentation, or do any obsteteric operation requiring instruments, or to treat any other abnormal condition, except in emergencies. Any person shall be regarded as practicing medicine or surgery within the meaning of this act who shall append the letter M.D. or M.B. to his name, or for a fee prescribe, direct or recommend for the use of any person, any drug or medicine or other agency for the treatment, cure or relief of any wound, fracture or bodily injury, infirmity or disease; provided, however, that nothing shall be construed to prohibit service in case of emergency, or the domestic administration of family remedies; and this act shall not apply to any commissioned medical officer of the United States army, navy or marine hospital service in the discharge of his professional duties nor to any legally qualified dentist when engaged exclusively in the practice of dentistry, nor to any physician or surgeon from another State or territory, who is a legal practitioner of Ohio, nor to any physician or surgeon residing on the border of a neighboring State, and duly authorized under the laws thereof to practice medicine or surgery therein whose practice extends into the limits of Ohio; providing that such practitioner shall not open an office or appoint a place to meet patients or receive calls in Ohio. The penalty for practicing medicine or surgery in violation of this act is a fine of from $20 to $500, or imprisonment of from thirty days to one year, or both, and for practicing midwifery without having complied with it, a fine of from $25 to $100. Any person who shall file, or attempt to file as his own, the medical diploma or certificate to practice of another, or shall file or attempt to file, a false forged affidavit of his identity, or shall wilfully swear falsely to any question which may be propounded to him on his medical examination, or to any affidavit required to be made or filed by him shall be imprisoned in the penitentiary not more than five years nor less than one year. Such fines when collected shall be paid, one-third to the person, corporation or medical society making the complaint or furnishing the information, one-third to the poor fund of the county, and one-third to the State board. The secretary of the board is charged with the duty of enforcing this act. If he have knowledge or notice that it has been or is being violated, he shall investigate the matter, and upon probable cause appearing, file a complaint and prosecute the offender. It shall be the duty of the prosecuting attorney, when requested by such secretary, to take charge of and conduct such prosecutions. Original sections 4403 and 6992 of the Revised Statutes of Ohio are repealed.

Practical Notes.

Electric Depilation.—After treatment of this kind there are always a number of hairs that grow out again, and Dubreuilh states that these are new hairs, supplanting a hair that was dead at the time of treatment. To save the useless trouble of electrolyzing dead hairs, he first has the surface cut close a week or so beforehand, and then electrolyzes only those hairs which have evidently grown since they were cut, merely pulling out with the tweezers those that have not grown. A few weeks later he electrolyzes the young hairs that have grown in the places of the latter.—*Annales de Derm. et de Syph.*, April.

Discussion of Treatment of Adenoid Vegetations.—At the Congress of the French Société de Laryngologie, Otologie et Rhinologie held at Paris recently, the old idea that persons subject to adenoid growths are deficient in intelligence, was disproved and the fact cited that Canova and Charles V were "adenoidans." Medication alone is absolutely ineffective. Digital palpation must accompany the use of the mirror, and the only contra-indications to an operation are hemophilia, arterial anomalies and activity of adenoid growth. Washes were strongly condemned by the majority, and the use of an anesthetic by a few. Others urged its necessity as a matter of course and use hydrobromic ether. Texier stated that ten to fifteen grams are sufficient and no accidents follow the use of this small amount. Polo gives a few drops of ferric chlorid for a few days previously to prevent hemorrhage. Sea air is generally considered to have an unfavorable effect, and some cases were reported of otitis of the middle ear, following a stay at the sea shore.—*Bulletin Médical*, May 10.

Calomel in Heart Disease.—Maldarescu writes to the *Therap. Woch.* of May 10, describing the successful results he has obtained with calomel in heart troubles accompanied by distress in breathing, severe disturbances in the circulation, ascites, edema, albuminuria and hypertrophied heart and liver. He gives it in six powders with sugar, 0.10 gram every two hours during the day, for two or three days, following this with 0.10 to 0.20 gram a day for a few days, after when he then commences potassium iodid. Enormous ascites and edemas vanish with this treatment, and even patients in complete cyanosis are restored to comparative health. He ascribes the wonderful action of the calomel to its effect on the liver. It relieves the congestion, and thus restores the circulation in the important portal and liver veins, which exert a favorable influence on the entire circulation and cures some of the complications, while it relieves all. The gums are frequently affected by the calomel, and he orders a mouth wash from the first, consisting of potassium chlorate 10.0, tannin 0.25, aq. dist. 350. He limits his patients to a milk diet during the treatment, and warns them afterward to refrain from alcohol and excessive exertion, and restrict themselves to a light diet, and persist in the use of potassium iodid. He has treated 107 cases, with five deaths of those that were *in ultimis*, and nine other deaths, all of elderly persons in advanced stages. He notes that the calomel has also the advantage that after it other remedies produce their best effect. He scouts the idea that calomel can form sublimate in the alimentary canal, as a very elevated temperature is required for this.

Cincinnati.

THE COMMITTEE SELECTED by the State Board of Medical Examiners to investigate the American Eclectic Medical College, Hygeia Medical University of Ohio, and the Vitapathic College began their investigations June 11. Ex-Attorney-General John K. Richards and County Prosecuting Attorney Schwartz are conducting the examinations. It is stated that the American Eclectic Medical College has been blacklisted by the Boards of Alabama, California, Colorado, Illinois, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Missouri and New Jersey.

DR. CHARLES H. CASTLE has resigned as resident physician of the Cincinnati Hospital to assume charge of the surgical clinic of the Miami Medical College, and has also been elected secretary of the faculty.

DR. CHARLES A. L. REED has been elected gynecologist and abdominal surgeon on the staff of the Cincinnati Hospital, vice Dr. T. A. Reamy, resigned.

THE FIGHT against the alleged abortionists is being carried on with commendable vigor.

THE OHIO STATE PEDIATRIC SOCIETY elected the following officers at its annual meeting held at Columbus May 27: President, Dr. S. W. Kelly, of Cleveland; Vice-President, Dr. J. P. West, of Bellaire; Secretary, Dr. George M. Clouse, of Columbus; Treasurer, Dr. J. M. Dunham, of Columbus. The next meeting will be held in connection with the Ohio State Medical Society.

THE MORTALITY REPORT for the week ended May 29 shows 107 deaths.

THE STATE BOARD OF MEDICAL EXAMINERS of Ohio have

passed the following resolutions in relation to the standing of medical colleges:

Resolved, That all medical colleges of the United States requiring a minimum of three years' study of medicine and two courses of lectures for graduation, prior to 1886, and possessing proper facilities for teaching and a faculty embracing the chairs of anatomy, physiology, chemistry, materia medica, therapeutics, medicine, surgery and obstetrics shall be recognized as in good standing, and diplomas issued by the same and properly verified shall entitle the holders thereof to register as graduates in medicine under the laws of Ohio, providing that no certificate shall be issued to any applicant upon proof that his or her diploma has been obtained fraudulently, or in violation of the published rules of the college issuing same.

Resolved, That for the ten years ending Feb. 27, 1896, all medical colleges exacting the foregoing requirements and possessing facilities and a faculty as specified in foregoing resolution shall by virtue of such facts be recognized as in good standing to and including the year 1892, but that no medical college shall be recognized in good standing which has not since 1892 possessed the foregoing facilities and faculty, and which had not in addition exacted an entrance qualification and attendance upon three regular courses of lectures as a condition of graduation.

Resolved, That on and after July 1, 1899, no medical college shall be recognized as in good standing which does not require the entrance qualification prescribed by the Association of American Medical Colleges as a prerequisite for matriculation; which does not possess an adequate equipment for teaching medicine; which has not clinical and hospital facilities, based upon a minimum municipal population of 50,000, and which does not have an active faculty embracing the departments of anatomy, physiology, chemistry, therapeutics, materia medica, medicine, obstetrics, histology, pathology, bacteriology, gynecology, laryngology, hygiene, state medicine, surgery, ophthalmology, and which does not enjoin attendance upon 30 per cent. of four regular courses of instruction, of not less than twenty-six weeks each in four different years, and which does not exact an average grade of 75 per cent. on examination as conditions of graduation; providing that the rule relative to population as a basis for clinical and hospital facilities shall apply to institutions under State control, receiving gratuitously patients from all parts of the State in which the colleges are located.

Washington.

WEEKLY REPORT OF HEALTH OFFICE.—The report of the Health Officer for the week ending May 23 is as follows: Number of deaths (stillbirths not included), 83; death rate per 1,000 per annum, 15.7; death rate per 1,000 per annum for the corresponding week last year, 15.2. A fall of over 16 per cent. in the mortality of the city occurred last week as compared with the week before. The improvement was mainly in a decrease in the diseases of the respiratory organs and of the mortality among children under 5 years of age.

LAW REGULATING TESTIMONY OF PHYSICIANS.—"That in the courts of the District of Columbia no physician or surgeon shall be permitted without the consent of the person afflicted, or of his legal representative to disclose any information, confidential in its nature, which he shall have acquired in attending a patient in a professional capacity and which was necessary to enable him to act in that capacity, whether such information shall have been obtained from the patient or from his family or from the person or persons in charge of him: *Provided*, That this act shall not apply to evidence in criminal cases where the accused is charged with causing the death of, or inflicting injuries upon, a human being, and the disclosure shall be required in the interests of public justice." The above became a law without the signature of the President. To obviate this law some of the life insurance companies have incorporated the following in their contract for insurance: "I also agree to waive all provisions of law forbidding any physician or surgeon from disclosing any information acquired while attending me in a professional capacity."

PHYSICIANS TO THE POOR appointed by the Health Officer: Drs. Taliafero Clark, F. A. Mazzei, D. G. Lewis, F. O. Roman, J. A. Stoutenburg, E. M. Hasbrouck, E. E. Richardson and G. W. Wood.

THE PUBLIC SERVICES.

Army Changes. Official List of changes in the stations and duties of officers serving in the Medical Department, U. S. Army, from May 30 to June 8, 1896.

Capt. Louis A. LaGarde, Asst. Surgeon U. S. A., is granted leave of absence for one month.

Navy Changes. Changes in the Medical Corps of the U. S. Navy for the week ending June 6, 1896.

Surgeon L. L. von Wedekind, ordered to the Naval Academy.
Surgeon C. A. Siegfried, detached from the "Columbia" and ordered to the "Massachusetts."
Surgeon E. Z. Derr, detached from the "Raleigh" and ordered to the "Columbia."
Surgeon H. G. Beyer, detached from the naval academy June 5, and ordered to the "Raleigh" June 6.
P. A. Surgeon M. S. Guest, detached from the "Constellation" June 8, and ordered to the "Massachusetts" June 10.

Marine-Hospital Changes. Official list of changes of station, and duties of Medical Officers of the U. S. Marine-Hospital Service, for the sfxteen days ended May 31, 1896.

Surgeon J. B. Hamilton, granted leave of absence for ten days, May 23, 1896.
P. A. Surgeon B. W. Brown, granted leave of absence for six days, May 25, 1896.
Asst. Surgeon C. H. Gardner, ordered to examination for promotion, May 27, 1896.

BOARDS CONVENED.

Board convened to meet in Washington, D. C., June 15, 1896, for the examination of officers for promotion and candidates for appointment in Service. Surgeon G. W. Stoner, chairman; Surgeon Fairfax Irwin and P. A. Surgeon C. E. Banks, recorders, May 25, 1896.
Board convened to meet in New York city May 27, 1896, for the physical examination of candidates for appointment in revenue cutter service. Surgeon W. A. Wheeler, chairman; P. A. Surgeon J. H. White, recorder, May 25, 1896.

U. S. Indian Service Changes. Medical Department, Z. T. Daniel, M.D., Agency Physician.

Pine Ridge Agency, South Dakota, to U. S. Indian Industrial School, Carlisle, Pa.

Change of Address.

Beadles, C. H., from Lewiston, Ill., to Sadlersville, Tenn.
Berry, H. A., from Chicago to Oswego, Ill.
Davis, R. E., from Chicago to Wales, Wis.
Dick, D. B., from Mt. Pleasant to Oakville, Ill.
Dvorak, W. R., from 1311 W. 16th St. to 1620 W. 22d St., Chicago.
Fuller, Wm., from 4704 State St. to 4700 State St., Chicago.
Grote, H. W., from Chicago to Room 9, Masonic Temple, New Orleans.
Hollister, Thos. C., from Pawnee City, to Louisville, Neb.
Hall, L. T., from Fulton to 911 N. Vandeventer Av., St. Louis, Mo.
Jackson, Edward, from Denver, Colo., to 1633 Locust St., Philadelphia.
Kelly, Warren, from Carlisle to Traskwood, Ark.
Kilpatrick, O. B., from New York, N. Y., to Cherry Fork, Ohio.
King, Elliott R., from Muscatine to Wilton Junction, Iowa.
Moody, G. H., from Mexico to South Texas.
Monette, Geo. N., from 5 Prytania St., to 1620 Calliope St., New Orleans.
McGahan, C. F., from Aiken, S. C., to Bethlehem, Pa. H.
Rhoden, J. C., from Chicago to P. O. Box 63, Ponca, Neb.
Seagley, I. B., from 936 Polk St., to 627 Grand Av., Chicago.
Sigle, Emma, from Chicago to Hales Corners, Wis.
Smith, Col. R., from Government Island, N. Y., to 2135 Spruce St., Philadelphia, Pa.
Wood, E. S., address should be 524 Michigan Av., Leavenworth, Kan., instead of Chicago.

LETTERS RECEIVED.

Anderson, Mary, Indiana, Pa.; Atkinson, W. B., Chicago.
Braunwarth, J. S. Muscatine, Iowa; Barker, E. O., Guthrie, O. T.; Beck, Carl, New York, N. Y.; Brownne, John S., New York, N. Y.; Beadles, C. H., Lewiston, Tenn.; Brockhausen, B. Erp., Lansing Iowa.
Carroll, C. C., Poughkeepsie, N. Y.; Cain, J. S., Nashville, Tenn.; Craig, G. G., Rock Island, Ill.; Cleary, W. P., New York, N. Y.; Wm. A., Collord, Cincinnati, Ohio; Colvin, Darwin, Clyde, N. Y.; Carrington, J. S., Jewell Junction; Cobleigh, E. A., Chattanooga, Tenn.; Chappell, Walter F., New York, N. Y.; Cerna, David, Galveston, Texas; Chaille, S. E., New Orleans, La.; Cook, R., Harvey, Oxford, Ohio.
Didama, H. D., Syracuse, N. Y.; De Courcy, J. O., St. Libory, Ill.; Dios Chemical Co., St. Louis, Mo.
Estes, W. L., South Bethlehem, Pa.; Engelmann, Geo. J., Boston, Mass.; Emmert, J. M., Atlantic, Iowa; Enfield, Chas., Jefferson, Iowa; Elliott, Arthur R., Chicago.
Foust, A. E., Philadelphia, Pa.
Gates, Geo. W., St. Louis, Mo.
Hall, C. W., Kewanee, Ill.; Haldenstein, I., New York, N. Y.; Hance, T. F., Washington, D. C.; Hagelett, Edw. E., Abilene, Kans.; Hardy, H. T., Kaneville, Ill.; Hester, W. W., Chicago; Hummel, A. L., Advertising Agency (4), New York, N. Y.; Huennekens, J. H., Milwaukee, Wis.
King, Ferdinand, New York, N. Y.
Lehn & Fink, New York, N. Y.; Larrabee, John A. Louisville, Ky.; Lyman, C. B., Denver, Colo.; Loeb, Hanau W., St. Louis, Mo.
Mulock, M. B., Joliet, Ill.; Martin, Ira M., Raymond, Wis.; Murray, D. H., Syracuse, N. Y.; Maytum, W. J., Alexandria, S. D.
Nessley, Geo. B., East Liberty, Ohio.
Oliver, J. C., Cincinnati, Ohio; Ormsby, O. B., Murphysboro, Ill.; Ohls, Henry G., Chicago.
Playter, Edward, Ottawa, Canada; Porter, Miles F., Ft. Wayne, Ind.; Pantagraph Ptg. and Sta. Co., Bloomington, Ill.
Reed, H. W., Murfreesboro, Tenn.; Reed, R. Harvey (2), Columbus, Ohio; Riddell, W. C., Helena, Mont.; Randall, B. Alex., Philadelphia.
Smith, J. T., Baltimore, Md.; Smith, C. J., Pendleton, Ore.; Souchon, Edmond, New Orleans, La.; Small, E. H., Pittsburg, Pa.; stephens, L. C., Blackville, S. C.; Schaeffer, C. R., Indianapolis, Ind.
Thayer, Chas. P., Boston, Mass.; Taylor, C. F., Philadelphia, Pa.; Trowbridge, L. S., Detroit, Mich.; Tyree, J. S., Washington, D. C.
Wyeth, John A., New York, N. Y.; Wheaton, C. A., St. Paul, Minn.; West, H. A., Galveston, Texas; Woodbridge, John Eliot, Cleveland, Ohio; Wagley, Thos. J., New York, N. Y.; Wallon, A. J., & Son, Syracuse, N. Y.; Walker, Edwin, Evansville, Ind.; Walker, W. E., Pass Christian, Miss.